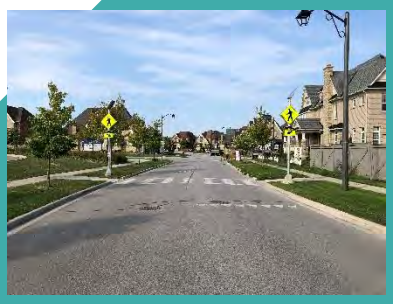
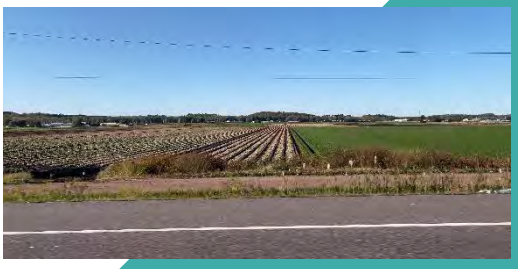
KING TOWNSHIP - 2020 TRANSPORTATION MASTER PLAN

THE WAY FORWARD

FINAL





MARCH 2020

EXECUTIVE SUMMARY

Introduction

King Township has prepared an update to its 2015 Transportation Master Plan (TMP) to reflect continued growth in its communities, changes to policies across multiple levels of government, and to continue to be responsive to travel needs in the Township by a variety of modes of transportation.

With a heightened focus on transportation's role in climate change and updated transportation data, the Township has refined the 2015 TMP to better suit their needs to the year 2031. The intent of the 2020 TMP is to review the planned improvements to identify gaps in the multi-modal transportation network and propose a plan to address the gaps.

The TMP was conducted under the Municipal Class Environmental Assessment process for master plans and fulfills Phases 1 and 2 of this process, namely, the identification of an Opportunity Statement, the assessment of multiple alternatives, and public consultation.

In response to King Council's declaration of a Climate Emergency and to align with the Township's Climate Action Plan, the TMP focuses on enhancing active transportation opportunities and transit connections. To encourage people to use more sustainable modes of transportation such as walking, cycling and transit, the TMP has been designed around the following three action items:

1. Implement an active transportation network that provides a viable and sustainable alternative to the automobile;
2. Improve connections to the GO train station for walking, cycling and bus service, including year-round maintenance of active transportation facilities providing access to this station; and
3. Consider the development of goods movement routes around Nobleton and King City to enhance the quality of life, and support active modes of travel by reducing congestion, in turn reducing greenhouse gases.

Existing Context

The existing conditions analysis reviewed population, employment and land use data, and current travel behaviour in King. The majority of people travel by car and the modal split has remained constant in the last 10 years. The most popular destinations for trips are within King and then to surrounding cities of Vaughan, Newmarket and Aurora, with Toronto as another popular destination.

Vision and Public Engagement

Public engagement has been an essential part of the development of the 2020 TMP. The Vision Statement (Opportunity Statement) developed for the TMP and presented for review and comment by the public reads:

> King Township envisions active transportation facilities, transit routes and roads that support the growth of vibrant communities and enhance the quality of life for residents. The multi-modal transportation network should provide mobility and connectivity that is sustainable, accessible and affordable for residents of all ages and abilities to the year 2031.

The vision statement and multi-modal plans to implement the vision were taken to the public for comment at a series of open houses in early October 2019. Public open houses were held at community centres in King City, Nobleton, and Schomberg. Additionally, project team members staffed a booth at the Holland Marsh Soupfest on October 5, 2019 and engaged with hundreds of residents and visitors.

Through these activities, the following themes were heard:

- Greater connectivity is desired in the road, active transportation and transit networks;
- Environmental concerns with select proposed roads; and
- General support for active transportation and transit, and desire for improved, safer facilities.

Roads

To meet the requirements of Phase 2 (alternatives assessment) of the MCEA process, the year 2031 forecast trips were overlaid on the existing transportation network to determine if the existing network would be sufficient. The second alternative was to add the recommended improvements from the 2015 TMP. The third alternative, which is the preferred alternative in this TMP, was to address any identified remaining gaps and plan for appropriate additional improvements.

The road network analysis included updates to road classifications, road widenings, proposed rights-of-way, the proposed goods movement network, and identified roads for potential upload to York Region. The recommendations for these various elements are shown on a series of maps in **Figure 4-15** through **Figure 4-29**.

Active Transportation

The existing and previously proposed active transportation (walking and cycling, but also including any other modes of active movement such as skateboarding and rollerblading) network was reviewed to identify gaps and potential areas where infill links can enhance network connectivity and complete missing routes. Potential infill links for the Township's active transportation network were identified based on several considerations, including:

- Completing gaps between existing routes / facilities;
- Connections to regional trail systems;
- Enhancing connectivity surrounding and within the Township's villages and hamlets;
- Connecting to existing transit services including YRT and GO Transit;
- Reflecting popular cycling routes as noted by residents, stakeholders and Township staff; and
- Connecting to key destinations such as libraries, schools, recreational areas and community centres.

The proposed active transportation routes by facility types are presented in **Figure 5-6** through **Figure 5-9**.

Transit

York Region Transit and GO Transit presently provide transit services within King Township. These are expected to continue and are proposed to be expanded over time with increased service and increased coverage. An analysis was conducted to identify gaps in the transit network. The gap analysis identified the following network or service gaps:

- Currently, the Township has one transit service that connects all three urban villages and the existing King GO station, the MOR King Local; this service only operates on weekdays during the morning and afternoon rush hours and does not operate weekends, holidays, or weekdays off-peak;
- With the planned increased frequency of GO trains from 30 minutes to 15 minutes throughout the day, this will result in higher traffic congestion at the at-grade railway crossing on Dufferin Street due to the increase in train traffic. Road/rail grade separation should be considered at this location; and
- There will be an increase in whistles blowing as the rail expansion program is implemented and train service is increased. Whistle cessation programs should be explored.

The recommended improvements to the transit network are illustrated in **Figure 6-7**.

Costing

High-level costs for road projects and active transportation projects have been included in the TMP. As transit services are provided by others, improvements to transit services have not been costed.

From a capital expense perspective, the recommended road improvements costed as part of the TMP only include the construction of new Township-owned roads and are expected to cost on the order of $650,000 (2019 dollars). It is assumed that the costs for all new roads within the future developments will be collected as part of the developers' applications; thus, these roads are not costed. Other road improvement costs, such as paving the remaining unpaved roads, have already been initiated outside of the TMP and have been budgeted separately.

The TMP identifies improvements to the Township's active transportation network. The expansion over time of more than 250 kilometres of facilities is estimated to cost about $53 million. The cost would be divided between the Township, York Region, and others. The total cost to the Township for full implementation is about $29 million, as shown in **Table ES-1**.

Table ES-1: Estimated Capital Costs for Proposed Active Transportation Facilities

Facility Types	Unit Price per KM	Township		Region		Other Jurisdictions		Total
		KM	Cost	KM	Cost	KM	Cost	
Off-Road Trail	$350,000	44.7	$15,660,000	0	$0	44.7	$15,660,000	**$31,310,000**
In-Boulevard Pathway	$325,000	12.7	$4,120,000	0	$0	0	$0	**$4,120,000**
Bike Lane	$53,000	0	$0	3.2	$170,000	0	$0	**$170,000**
Paved Shoulder	$150,000	17.0	$2,550,000	55.8	$8,370,000	0	$0	**$10,920,000**
Signed Route	$1,200	54.8	$70,000	8.9	$20,000	0	$0	**$80,000**
Sidewalk	$300,000	21.5	$6,460,000	0	$0	0	$0	**$6,460,000**
Total	-	**150.7**	**$28,860,000**	**67.9**	**$8,560,000**	**44.7**	**$15,660,000**	**$53,060,000**

Summary of Recommendations

The 2020 TMP contains important recommendations that include physical infrastructure projects, new services or programs, and additional studies to enhance the Township's multi-modal transportation network and make the Township more resilient to changing travel trends. An implementation strategy has been devised to group the recommendations into three horizons:

- Short-term (generally the next two years);
- Medium-term (to the year 2026); and
- Long-term (to the year 2031).

Short-term Recommendations

Roads

1. Establish a rational road classification to guide future planning and capital works, as provided in **Figure 4-15** to **Figure 4-18**;
2. Update the Township's Official Plan to reflect the right-of-way needs and ensure that sufficient property is available to accommodate roadway components as per the Township's design standards;
3. Conduct studies to assess the potential impacts of the GTA West Corridor on the villages of Nobleton and King City. The Township should also consider working with the Region and neighbouring municipalities to assess any land use impacts and implement land use policies to mitigate any potential impacts;
4. Commence dialogue with York Region regarding the uploading of roads in the short and medium term in accordance with York Region's policy, and obtain Council's approval, as may be required; and
5. Liaise with York Region to better understand the timing to commence the 15th Sideroad Environmental Assessment in King City, west of Keele Street.

6. Update the functional design and parking capacity report for the King Road and Keele Street intersection and move towards implementation of recommendations.

Active Transportation

7. Establish a terms of reference / scope of work for the development of an Active Transportation Master Plan, which will include an Implementation Plan to prioritize and phase the recommended network;
8. Work with Metrolinx and York Region to improve opportunities for active transportation users on Keele Street near the King GO Station;
9. Prioritize for implementation and maintenance walkable pathways to key destinations such as Major Transit Station Areas (MTSA), community centres, schools and other facilities;
10. Work closely with York Region on the implementation of new Regional Road pedestrian crossings at identified locations within the urban areas of King City, Nobleton and Schomberg to improve pedestrian and cyclist safety and mobility;
11. Utilize web mapping services, to advertise active transportation routes; and
12. Work with Smart Commute and York Region on behaviour change programs to encourage active transportation and transit to replace drive-alone car trips during peak periods, such as getting to and from the King GO Station.

Transit

13. Liaise with York Region and YRT to increase the service hours of the Mobility On-Request King Local to accommodate all day travel, seven days a week. If demand increases, King should advocate for the Mobility On-Request service to be converted into a fixed-route service.

Medium-term Recommendations

Roads

1. Work with the Region to consider development of the proposed goods movement routes identified in **Figure 4-28**.

Active Transportation

2. Partner with York Region to add signage for the York Region Cycling Tour Routes within King for economic and tourism development;
3. When roads are next scheduled for reconstruction, rehabilitation or resurfacing, where possible, widen roads with sufficient road base width to include up to two-metre paved shoulder and/or cycling facilities; and
4. Understand full lifecycle costs of new infrastructure to support long-term sustainability of the network through an asset management plan.

Transit

5. As part of the TPAP process for the twinning of the Barrie rail line, Township staff has formally advised Metrolinx in writing the Township requires the necessary infrastructure for whistle cessation be included in the project. King staff will continue to meet and follow up with Metrolinx staff; and
6. Promote the provision of direct transit services along King Road, Highway 9 and Davis Drive West into the Region's Frequent Transit Network.

Long-term Recommendations

Roads

1. Work with York Region to investigate the feasibility and impacts of extending and widening 15th Sideroad between Highway 400 and Bathurst Street.

Active Transportation

2. Consider establishing “cycling loops” within King City, Nobleton and Schomberg, and branding these loops with signage to direct people to trails, parks, community centres, attractions and other local amenities to generate interest in cycling for recreation, commuting, and tourism.

Transit

3. Work with Metrolinx and the Region to explore the feasibility of converting the at-grade rail crossing at Dufferin Street to a grade-separated crossing.

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1 INTRODUCTION

A Transportation Master Plan (TMP) is a visionary document that includes plans, policies and strategies for transportation infrastructure and services for walking, cycling, transit and roads. The plan guides staff, stakeholders and decision-makers on the transportation development and is typically updated every five years to address the changes in population, employment, travel trends or policy direction.

The Township of King undertook its first TMP in 2015 to develop sustainable, functional, and optimized transportation network within the Township. The 2015 TMP assessed and recommended improvements to the roads, active transportation and transit networks to meet the projected population and employment growth to 2031. The Township is undertaking an update to their 2015 TMP to incorporate updated population and employment forecasts and to guide the further development of the Township's multi-modal transportation network to the year 2031. This chapter will discuss the purpose of this study and how it was completed.

1.1 STUDY PURPOSE

The Township's 2015 TMP was designed to evaluate the Township's unique characteristics and transportation needs, including consideration for environmental and land use planning. Strategies were developed to improve policies, infrastructure and services required to support the growth of the Township.

With new policies across multiple levels of government including a heightened focus on transportation's role in climate change, new population and employment growth projections, affordable housing, and updated transportation data, the Township has refined the 2015 TMP to better suit their needs to the year 2031. The intent of the 2020 TMP is to review the planned improvements to identify gaps in the network and propose a plan to address the gaps. Part of the plan will require additional studies to address in detail the community's goals. The Township of King 2020 TMP aspires to:

- Plan transportation infrastructure that accommodates all users of all abilities;
- Promote alternative modes of transportation to the private vehicle to address the impacts on climate change;
- Create sustainable and comfortable streets that are safe for pedestrians and cyclists; and
- Provide a road classification system to guide future planning and capital works. The road system identifies:
  - Hierarchy of roads;
  - Number of travel lanes;
  - Rights-of-way;
  - Priority gravel roads for paving;
  - Goods movement network; and
  - Roads that serve a regional function.

1.2 GEOGRAPHIC CONTEXT

King Township is located in York Region. It is bound by the Towns of East Gwillimbury, Newmarket, Aurora and the City of Richmond Hill to the east and the City of Vaughan on the south. To the north are the Towns of New Tecumseth and Bradford West Gwillimbury, and to the west is the Town of Caledon, as shown in **Figure 1-1**.

The Township is comprised of three villages and seven hamlets:

Villages

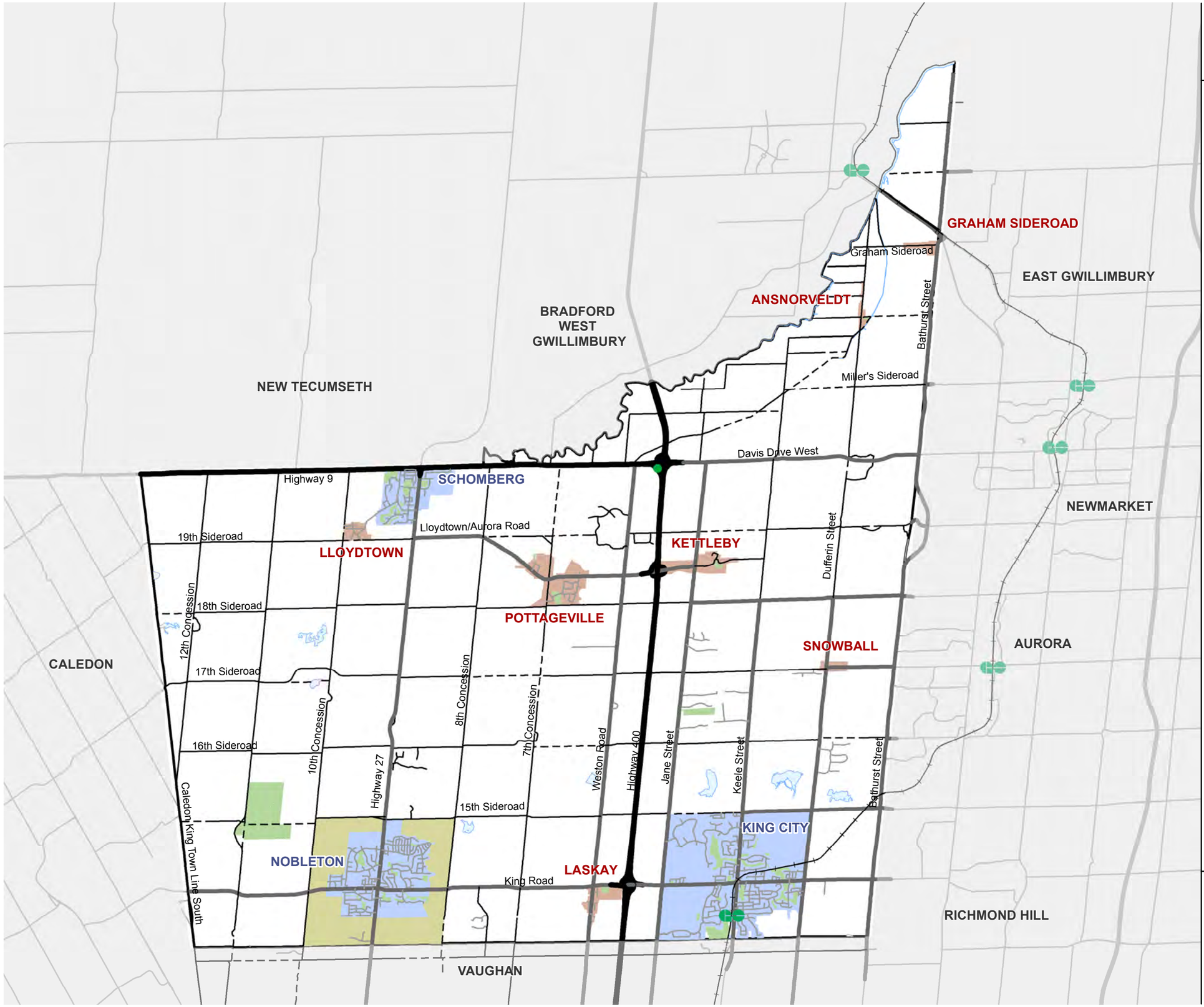
- King City
- Nobleton
- Schomberg

Hamlets

- Laskay
- Snowball
- Kettleby
- Pottageville
- Lloydtown
- Ansnorveldt
- Graham Sideroad

FIGURE 1-1
KING TOWNSHIP
TMP STUDY AREA

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



Waterbody
Park / Open Space
Village
Nobleton Village Reserve
Hamlet

Transit Network

- GO Bus Stop
- GO Train Station
- GO Train Rail Line

Road Network

- Provincial Highway / Freeway
- Regional Road
- Rural Road
- Urban Road
- Unopened Road Allowance

N

0 2.5 5 km

KING

wsp

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

This map is illustrative only. Do not rely on it as being a precise indicator of routes, locations of features, nor as a guide to navigation. The Township of King shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.

March 2020

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1.3 MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT PROCESS

The 2020 TMP has been developed as a collaboration between the Township and WSP (commissioned consulting team), and included input and engagement with community residents, local stakeholders and interest groups, and governmental agencies.

The 2020 TMP was developed in accordance to the Municipal Class Environmental Assessment (MCEA) process. Master Plans are required to complete Phases 1 and 2 of the five-phased MCEA process, which include:

- Development of an opportunity statement, objectives and an overall TMP vision (Phase 1);
- Alternative scenarios development and evaluation, leading to a preferred alternative (Phase 2); and
- Engaging public representatives and stakeholders at least twice over the course of the study.

Completion of Phases 1 and 2 allows the Township to move on to implementation of any Schedule A, A+ or B projects and allows the Township to continue to Phase 3 (Assessment of Design Alternatives) for the recommended projects that fall under Schedule 'C' of the Class EA Document. Further consultation will be required for any Schedule 'C' projects.

The TMP process was divided into four stages with three engagement rounds. An overview of the process used to prepare King's 2020 TMP is described in **Table 1-1**.

Table 1-1: King Township 2020 Transportation Master Plan Development Process

1

Stage 1. - Project Commencement:

- Identify King's transportation challenges and opportunities
- Identify what has changed in infrastructure and population and employment forecasts
- Research key background information

Public Engagement #1: Notice of Study Commencement

2

Stage 2. - Needs Assessment:

- Review previously planned projects to determine if sufficient to meet forecasted demand
- Identify potential gaps in transportation networks
- Identify potential alternatives to address identified network gaps

3

Stage 3. - Evaluation and Selection of Preferred Alternatives:

- Evaluate identified alternatives and recommendations
- Gather input from the community and various stakeholders to inform preferred alternative and recommendations
- Select preferred alternative and set of recommendations

Public Engagement #2: Three Public Information Centres

Public Engagement #2: Holland Marsh Soupfest

4

Stage 4. - Create a Plan:

- Develop a strategy to put into action preferred transportation recommendations to the year 2031
- Present outcomes to Council and the public

Public Engagement #3: Council Presentation and Notice of Study Completion

1.4 ADDRESSING CLIMATE CHANGE

In June 2019, King's Council declared a Climate Emergency and set a goal of a 45 percent reduction in Greenhouse Gas (GHG) emissions by 2030 as part of the Township's Climate Action Plan. The Township will endeavour to meet this goal through a variety of initiatives, and the actions of the TMP directly contribute to this goal.

The TMP focuses on enhancing active transportation opportunities and improving the roads and networks to keep transit vehicles and cars moving. This in conjunction with the Township's drive to provide access to alternative fuel options, more specifically, the installation of electric vehicle charging stations at various municipal facilities throughout the Township is a contributor to GHG reduction opportunities.

To encourage people to get out of their cars and using more sustainable modes of transportation such as walking, cycling and transit, the TMP has been designed around the following three action items:

1. Implement an active transportation network that provides a viable and sustainable alternative to the automobile;
2. Improve connections to the GO train station for walking, cycling and bus service, including year-round maintenance of active transportation facilities providing access to this station; and
3. Consider the development of goods movement routes around Nobleton and King City to enhance the quality of life, and support active modes of travel by reducing congestion, in turn reducing greenhouse gases.

1.5 STUDY METHODOLOGY

The 2020 TMP assesses the current transportation conditions and context of the community, with the goal of determining gaps and opportunities for future improvements.

The 2020 TMP was launched July 2019 to address four key questions:

1	**What has changed in infrastructure?** Initial review of the existing conditions and understanding what has changed since the 2015 TMP
2	**How has the population and employment forecasts changed?** Identify the demographic and socio-economic trends to understand mobility characteristics and where growth will occur
3	**Will previously planned projects meet future needs?** Review planned projects for walking, cycling, transit and roads to determine opportunities integrate with other projects and if the infrastructure is sufficient for forecasted demands
4	**Where are the gaps in the network?** Assess and recommend opportunities for improvement to walking, cycling, transit and roads networks

With the increased interest in developing sustainable and complete communities to help address a variety of concerns, including climate change, this TMP promotes the development of a multi-modal system that provides users with viable and accessible travel options. This approach is supported by multiple levels of government and draws on York Region's Transportation Master Plan to adapt a "made in King Township" solution.

A comprehensive review of the existing road, active transportation and public transit networks is required to understand the function of the transportation infrastructure. The study focused first on establishing a comprehensive road network and classification system. The active transportation and transit aspects of this study focused on the gaps in the existing network to be further analyzed for detailed improvement strategies.

Input from residents of the community, people outside of the Township, and local stakeholders were considered and incorporated to better reflect the current mobility usages. Feedback on the existing transportation infrastructure is vital to understanding where challenges and desired connections are, including those that link to surrounding municipalities.

2 EXISTING CONTEXT

The 2020 TMP is shaped by three key conditions:

- **The people**. Those who live, work and play within the Township who utilize the transportation system and travel within, between and to surrounding municipalities.
- **The community**. The land-use and development trends due to the growth that King is experiencing.
- **The transportation system**. The system that allows people to move to and from key destinations throughout the Township, to surrounding areas and to regional destinations.

This chapter will provide details about the Township's population and employment, land-use and development, and travel trends.

2.1 THE PEOPLE: POPULATION AND EMPLOYMENT TRENDS

King City, Nobleton and Schomberg are the three villages where King Township is forecasted to experience most of the population growth and all employment growth within the next twenty years. The Township has developed population and employment forecasts that provide an overall growth vision for the intensification areas. As directed by the 2010 York Region Official Plan, the Township is forecasted to:

- Increase population to 34,900 residents by 2031, a 37 percent increase from 2016; and
- Increase employment to 11,900 jobs, a 20 percent increase from 2016.

Table 2-1 summarizes the Township's population and employment forecasts between 2011 and 2031.

Table 2-1: Township's Population and Employment Forecasts

SERVICE AREA	POPULATION			EMPLOYMENT		
	2011	2016	2031	2011	2016	2031
King City	4,100	6,900	15,500	2,000	1,950	2,950
Nobleton	3,200	5,700	6,750	1,000	1,050	1,850
Schomberg	2,000	2,900	3,100	1,600	2,150	2,250
Countryside (including all lands outside of Villages)	10,600	10,000	9,550	2,550	4,800	4,850
Total	**19,900**	**25,500**	**34,900**	**7,150**	**9,950**	**11,900**

Note: The totals may not add up due to rounding.
Source: Township of King Planning Department, 2019

2.2 THE COMMUNITY: LAND-USE STRUCTURE

The Township is predominantly rural with its residents concentrated in three villages (King City, Nobleton and Schomberg) along with seven hamlets (Laskay, Snowball, Kettleby, Pottageville, Lloydtown, Ansnorveldt and Graham Sideroad). The Township is most commonly known for its picturesque countryside that include the rolling hills and natural areas of the Oak Ridges Moraine and the Greenbelt. The Township is also well known for its horse and produce farms; a significant portion of the Holland Marsh is located within the Township.

Each of the three villages contain a Core Area surrounded by low density residential, commercial and employment areas. The hamlets consist mostly of residential and commercial land-uses with some industrial and institutional areas. The land-use schedules from the Township's adopted Official Plan (Council adopted September 23, 2019) for the three villages and seven hamlets are provided in **Appendix A**.

2.3 THE TRANSPORTATION SYSTEM: TRAVEL TRENDS

One of the key aspects of transportation planning is to understand how people travel to ensure that adequate transportation networks are provided to meet demand. Travel behaviour is monitored in the Transportation Tomorrow Survey (TTS), which is a comprehensive travel survey conducted by the University of Toronto Transportation Research Institute. The survey is conducted in the Greater Golden Horseshoe (GGH) every five years since 1986 and is funded by the Ontario Ministry of Transportation (MTO), Metrolinx, Toronto Transit Commission (TTC), and municipalities in the GGH. The data collected during the survey is maintained in a database and utilized to make transportation planning and investment decisions within local, regional, provincial and transit agencies, among others.

The Township supports an inter-connected network for various transportation modes and trip types. This system of roads, bridges, sidewalks, trails, and cycling routes supports the trips from residential nodes to employment, commercial and recreational destinations. This section analyzes these trip patterns in terms of how people travel (commuter modal split), as well as where they are travelling (trip distribution).

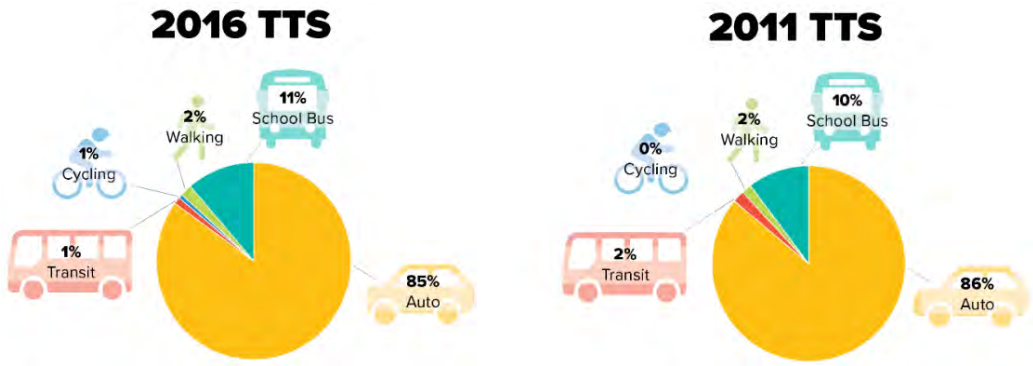
To determine how people are travelling, 2016 TTS modal split data was obtained to assess the morning peak period travel behaviour; the morning peak period (7:30 to 9:30 a.m.) typically represents the Township residents' trips travelling from home to work or school. Often, commuters taking one mode of transportation in the morning peak period will take the same mode of transportation for the return trip in the afternoon peak period. The morning peak period data was analyzed in the sections below.

2.3.1 HOW PEOPLE TRAVEL: COMMUTER MODAL SPLIT

Based on the 2016 TTS data, the most utilized mode of transportation used by the residents of the Township is auto (includes people traveling as auto or taxi passengers) at 85 percent, as illustrated in **Figure 2-1**. Travel by school bus is the next most frequently used transportation mode, with a limited number of trips by walking, cycling, or transit.

A review of the 2011 TTS data illustrates minimal change in travel behaviour within the Township in the last five years, also illustrated in **Figure 2-1**. While the Township is working towards improving its transit and active transportation infrastructure, the travel patterns assessed still demonstrate a heavy reliance on personal automobiles for day-to-day trips.

Figure 2-1: Morning Peak Period Commuter Modal Split

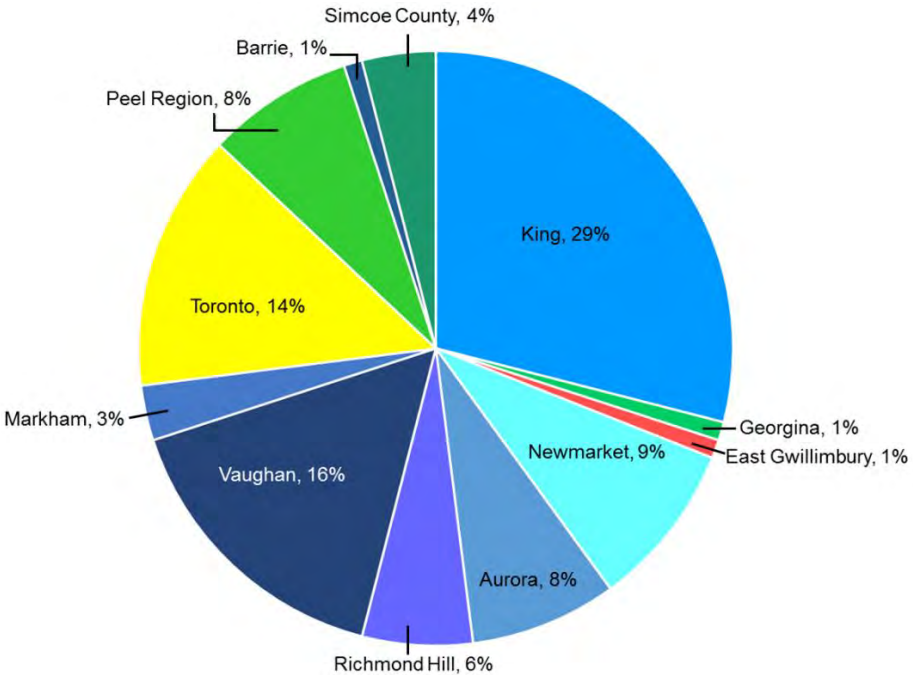


Source: 2016 and 2011 TTS data

2.3.2 WHERE ARE PEOPLE TRAVELLING: TRIP DISTRIBUTION

To determine where people are going, origin-destination surveys from the 2016 TTS were utilized to assess the morning peak period travel behaviour. The distribution of trips originating from the Township in the morning peak period is illustrated in **Figure 2-2**. It should be noted that these trips include all forms of travel such as auto, taxi, transit, walking, cycling and school buses.

Figure 2-2: 2016 Morning Peak Period Trip Distribution



Source: 2016 TTS data

Approximately 30 percent of trips remain within the Township, which is considerably higher than trips to any one of the surrounding municipalities or regions. Vaughan and Toronto are the next most popular destinations. Trips head in all directions from King during the morning commuting period.

3 VISION AND PUBLIC ENGAGEMENT

This chapter introduces the process to develop the "Vision Statement" for King's 2020 TMP and summarizes the feedback received from the public who helped to inform the recommendations in this document. The TMP was prepared using a collaborative process to increase the impact of decision making on the Township's transportation network.

3.1 DEVELOPMENT OF THE TMP VISION STATEMENT

The intent of the King 2020 TMP is to build upon the existing transportation system, the funded improvements, and previously proposed recommendations to provide a proactive and context specific approach to future planning, design and implementation. To achieve this, the TMP was crafted by community planning principles, best practices and public input.

King's transportation vision was shaped by numerous stakeholders including residents, technical agencies, local Councillors and Township staff responsible for implementing and monitoring transportation affairs for the Township. The Vision reflects multi-faceted principles that will guide decision-making and prepare for future growth that the Township will anticipate to the 2031 horizon year. The development of a vision statement, also called an opportunity statement, meets the requirements for Phase 1 of the MCEA process for master plans.

3.1.1 TMP VISION STATEMENT

King Township envisions active transportation facilities, transit routes and roads that support the growth of vibrant communities and enhance the quality of life for residents. The multi-modal transportation network should provide mobility and connectivity that is sustainable, accessible and affordable for residents of all ages and abilities to the year 2031.

3.1.2 KEY PRINCIPLES

When analyzing the various transportation improvements that could be recommended for King, the study team used six overarching principles. The study team considered "Does the transportation improvement:

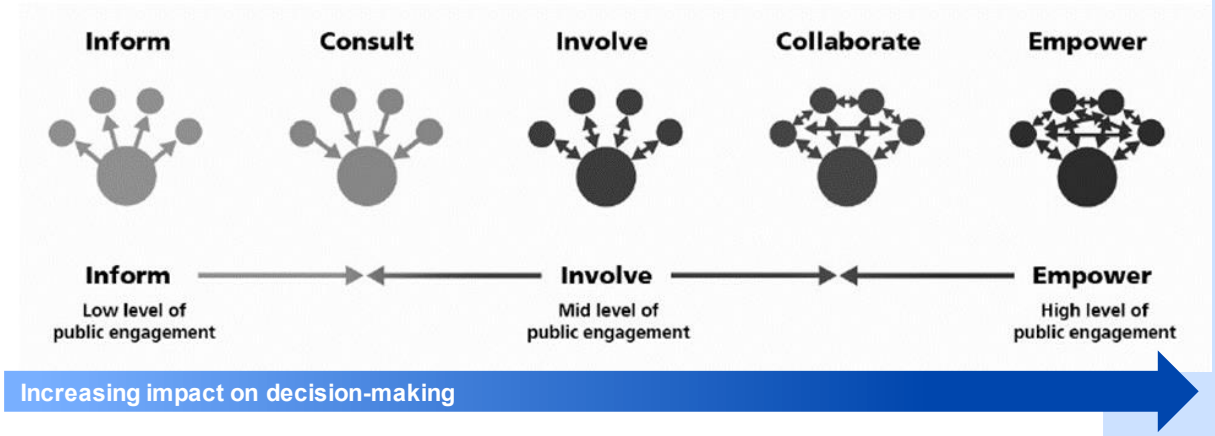
- Support accessible and active transportation;
- Support goods movement;
- Support transit;
- Limit environmental impacts;
- Relieve congestion; and
- Provide connectivity.

3.2 ENGAGEMENT APPROACH

Public consultation is an integral component of the MCEA process for transportation master plans. To meet this requirement, a public consultation and stakeholder engagement program was designed to obtain feedback from the residents and key staff members from King Township. This section provides an overview of the approach and methods used throughout the engagement process as well as a summary of key themes.

The Township applied an audience-focused consultation approach adopted from the International Association of Public Participation's (IAP2) standard for developing strategies to increase in-person and online engagement opportunities. IAP2 has five levels of participation, illustrated in **Figure 3-1**. Following this spectrum, the Township objective was to empower local stakeholders and residents to provide feedback that directly impacted the decisions made in the TMP.

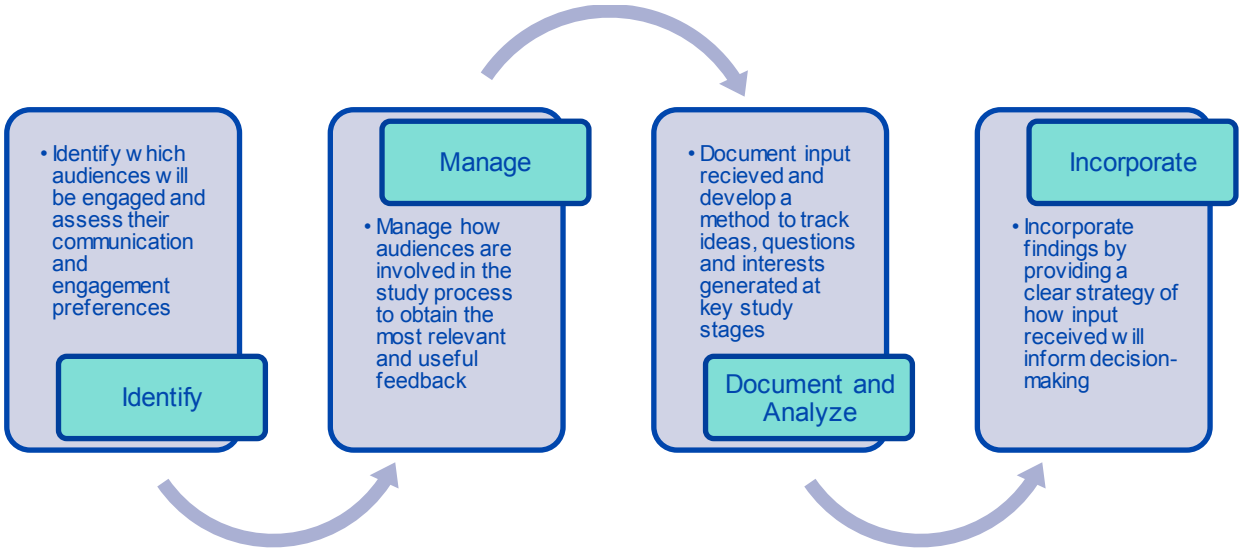
Figure 3-1: IAP2 Public Participation Spectrum



Source: International Association of Public Participation

A process of four main stages was adopted as part of the public consultation and engagement strategy. **Figure 3-2** summarizes the steps of the consultation methods adopted for King Township's 2020 TMP.

Figure 3-2: Consultation Methods



3.3 OUTREACH AND ADVERTISING

During the Fall of 2019, a series of events were held to present the proposed multimodal transportation improvements to the public.

The 2020 TMP was formally launched in September 2019, through a Notice of Study Commencement. The Notice, as seen in **Figure 3-3** was published September 19, 2019 online on the Township's website (http://www.king.ca/) and in the local newspaper. This Notice included information on the Public Information Centre drop-in event locations and an overview of the study.

Figure 3-3: Notice of Study Commencement


Township of King
TRANSPORTATION MASTER PLAN
Notice of Study Commencement

Come help shape the way forward!

ABOUT THE STUDY

King Township is updating its Transportation Master Plan (TMP) to guide its transportation network to the year 2031 and beyond. The plan and its vision will include strategies to improve different modes of travel including walking, cycling, transit and car. The public information centres provide residents an opportunity to comment on issues with travelling around the Township and provide input on ways to improve the multi-modal transportation network.

DROP BY AT ANY ONE OF OUR MEETINGS

King City	Nobleton	Schomberg
Tuesday, October 1, 2019 6:00 pm – 8:00 pm	Wednesday, October 2, 2019 6:00 pm – 8:00 pm	Tuesday, October 8, 2019 6:00 pm – 8:00 pm
King City Arena, Upstairs Hall 25 Doctors Lane, King City, ON L7B 1G2	Nobleton Community Hall, Downstairs Hall 19 Old King Road, Nobleton, ON L0G 1N0	Trisan Centre, Multi-Purpose Room A 25 Dillane Drive, Schomberg, ON L0G 1T0

*Visit our booth at **Soupfest** on **Saturday, October 5, 2019!***
11:00 am – 3:00 pm
Ansnorveldt Park
18997 Dufferin Street, Ansnorveldt, ON

Cannot attend? For more information about the Transportation Master Plan, please visit: tmp.king.ca

Throughout the study, several promotional methods were used to ensure that the public was well informed of the project and the engagement events. This includes:

Project Website

The Township developed tmp.king.ca as a central hub for information and updates on the study, including a digital copy of the boards used at the public information centres.

Project Contact Information

Contact information of the project team was included on the webpage and all consultation materials provided. This was used to collect additional questions or feedback received throughout the TMP process.

Social Media

Through the Township's existing social media, updates and materials were advertised to promote the events and other opportunities for input.

3.4 ENGAGEMENT AND MATERIALS

Engagement events were held between October 1 and 8, 2019. Residents were advised to input comments by Friday, October 18, 2019 for the project team to process and incorporate into the 2020 TMP. In total, there were four events held by the Township.

DROP-IN EVENTS

Three public information centres were held on three different dates and venues to provide alternative times to accommodate Township residents. The three locations were strategically selected in each of the three villages where the population densities are the highest:

King City
Tuesday, October 1, 2019
6:00 pm to 8:00 pm

King City Arena,
Upstairs Hall
25 Doctors Lane, King City, ON
L7B 1G2

Nobleton
Wednesday, October 2, 2019
6:00 pm to 8:00 pm

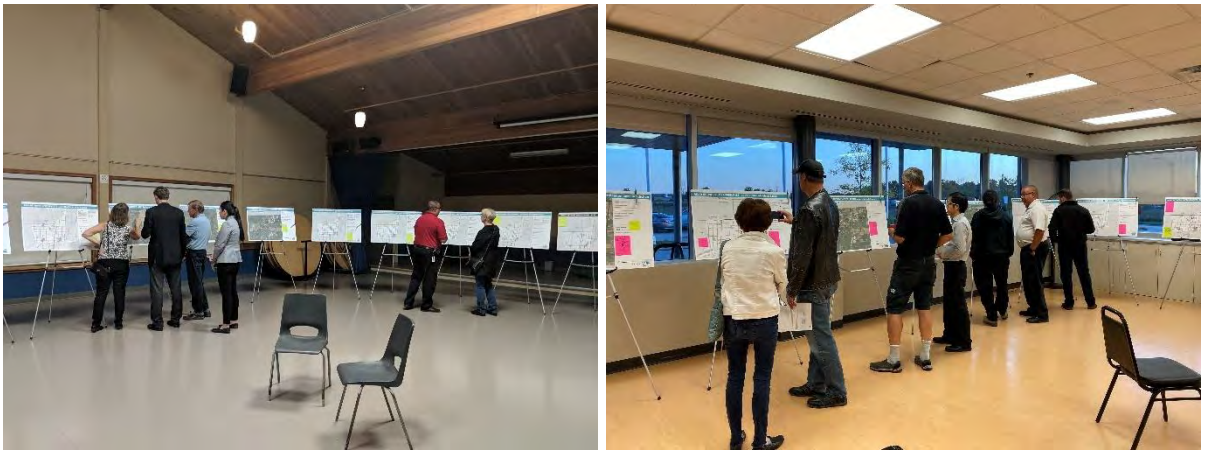
Nobleton Community Hall,
Downstairs Hall
19 Old King Road, Nobleton, ON
L0G 1N0

Schomberg
Tuesday, October 8, 2019
6:00 pm to 8:00 pm

Trisan Centre,
Multi-Purpose Room A
25 Dillane Drive, Schomberg, ON
L0G 1T0

These sessions were formatted as a drop-in open house displaying information on the project and the proposed improvements. The King City and Schomberg events are shown below in **Figure 3-4**. Project team members were available to answer any questions and compile input. Almost 50 people attended the centres across the three nights.

Figure 3-4: Participants at the King City (left) and Schomberg (right) Events



Source: WSP

SOUPFEST

In addition to the drop-in events, consultation was also held at the Holland Marsh Soupfest on Saturday, October 5, 2019 from 11:00 am to 3:00 pm. The event was held at Ansnorveldt Park and drew in hundreds of attendees. The TMP project team attended the event and had a booth, shown in **Figure 3-5**, to promote the study and collect feedback from attendees.

Figure 3-5: Participants at the TMP Soupfest Booth

Source: WSP

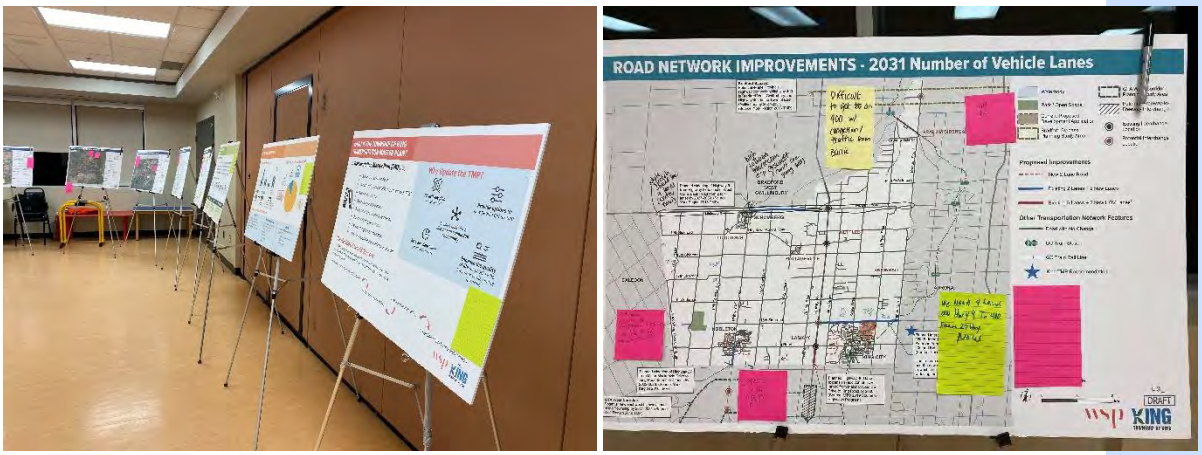
3.4.1 PANELS

At the four events, information panels were used to explain the objectives and present the proposed transportation network improvements identified through the data-driven process. The format of the panels is included in **Table 3-1**. A total of 22 panels were presented to the public, as shown in **Figure 3-6**. All panels are provided in **Appendix B**.

Table 3-1: Summary of Panels

PANEL	DESCRIPTION	# OF PANELS
Welcome and Introduction	Includes the list of drop-in events and an introduction on what a transportation master plan, the importance of updating the TMP, and describes the MCEA process	2
Existing Conditions	Describes the projected population growth, travel patterns, and the conditions of transit, active transportation and roads	1
Vision and Alternative Solutions	Presents the vision statement and the three alternative solutions to address Phases 1 and 2 of the MCEA process	1
Proposed Improvements	Displays the 2031 proposed improvements for the road, active transportation and transit networks	17
Next Steps and Contact Information	Describes the next steps in the TMP process and the contact information for the project team	1

Figure 3-6: Display of Panels and Example of Comments

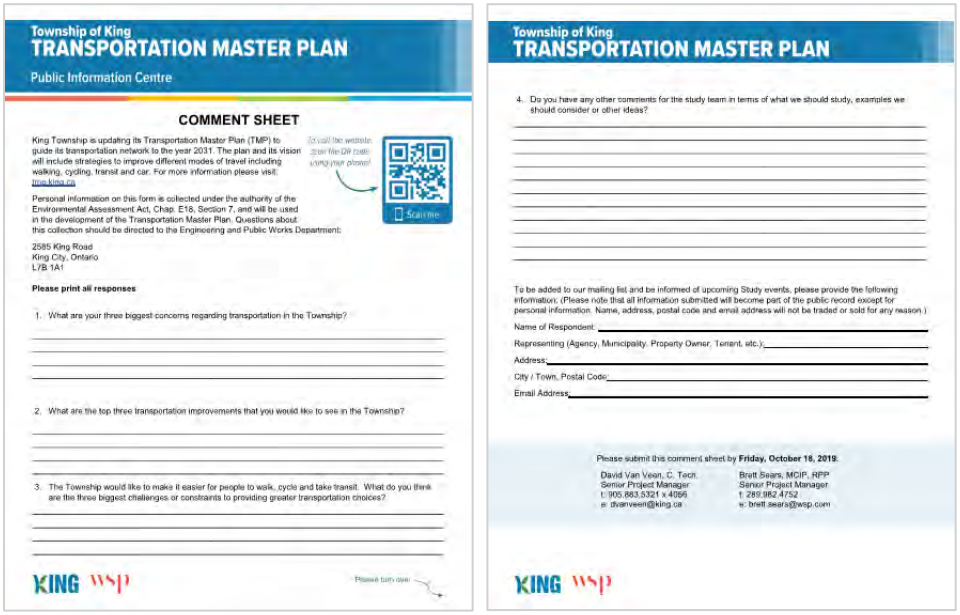


Source: WSP

3.4.2 COMMENT SHEET

At each of the events, comment sheets were available for participants to provide additional feedback or reference for information on the project. Comment sheets, as illustrated in **Figure 3-7**, included a summary of the project, a link to the project website, and the contact information to the project team leads.

Figure 3-7: Comment Sheet for Additional Feedback



Township of King
TRANSPORTATION MASTER PLAN
Public Information Centre

COMMENT SHEET

King Township is updating its Transportation Master Plan (TMP) to guide its transportation network to the year 2031. The plan and its vision will include strategies to improve different modes of travel including walking, cycling, transit and car. For more information please visit: www.king.ca

Personal information on this form is collected under the authority of the Environmental Assessment Act, Chap. E18, Section 7, and will be used in the development of the Transportation Master Plan. Questions about this collection should be directed to the Engineering and Public Works Department:

2585 King Road
King City, Ontario
L7B 1A1

Please print all responses

1. What are your three biggest concerns regarding transportation in the Township?

2. What are the top three transportation improvements that you would like to see in the Township?

3. The Township would like to make it easier for people to walk, cycle and take transit. What do you think are the three biggest challenges or constraints to providing greater transportation choices?

KING WSP

Township of King
TRANSPORTATION MASTER PLAN

4. Do you have any other comments for the study team in terms of what we should study, examples we should consider or other ideas?

To be added to our mailing list and be informed of upcoming Study events, please provide the following information. (Please note that all information submitted will become part of the public record except for personal information. Name, address, postal code and email address will not be traded or sold for any reason.)

Name of Respondent:
Representing (Agency, Municipality, Property Owner, Tenant, etc.):
Address:
City / Town, Postal Code:
Email Address:

Please submit this comment sheet by **Friday, October 18, 2019**.

David Van Veen, C. Tech.
Senior Project Manager
t: 905.883.3321 x 4056
e: dvanveen@king.ca

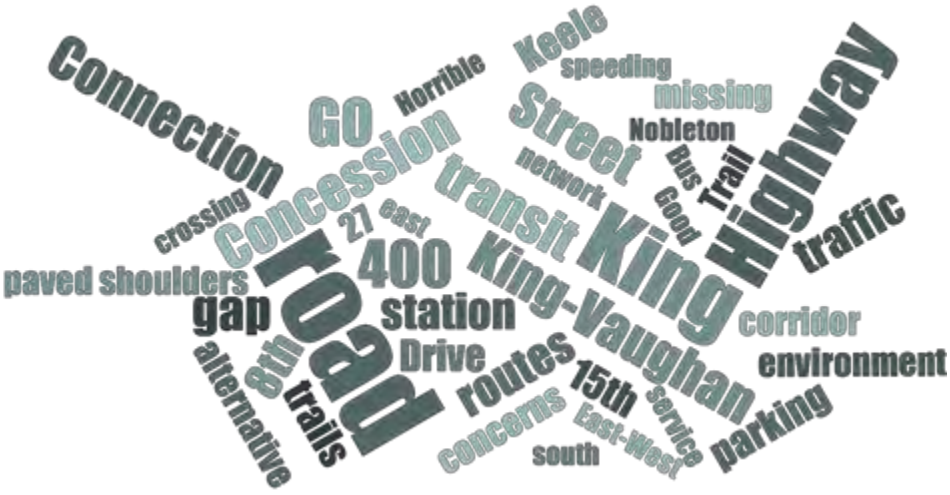
Brett Sears, MCIP, RPP
Senior Project Manager
t: 289.982.4752
e: brett.sears@wsp.com

KING WSP

3.5 SUMMARIZING THE FEEDBACK

A word cloud, **Figure 3-8**,was generated to highlight the key words based on the number of times the word appeared within the comments. This is a visual representation of the key issues and opportunities as identified by the attendees.

Figure 3-8: Word Cloud of Public Comments



3.5.1 ROADS

The engagement process allowed for multiple perspectives and comments to be collected on the proposed road network improvements and road classifications. The most commonly heard comments were regarding the lack of alternative routes due to the gaps and dead ends in the network. For example, in Nobleton the public identified that the only routes out of the village are King Road and Highway 27, causing these streets to be congested during peak hours. Roads that contribute notable gaps in the network include:

- 7th Concession;
- 8th Concession (to Vaughan);
- 15th Sideroad;
- 17th Sideroad; and
- 18th Sideroad.

Another common concern from the public is regarding the environmental impact of the new proposed roads. A few of the roadway linkages were proposed across environmentally sensitive areas and wetlands. The public would like a thorough environmental assessment and review of the proposed alignment.

3.5.2 ACTIVE TRANSPORTATION

Overall, the public was supportive of active transportation, especially off-road trails through natural areas. The public would like more trails, especially throughout the Oak Ridges Moraine area for recreational use. Cyclists were more attracted to off-road trails, which facilitated a more comfortable experience compared to on-road facilities. The current paved shoulders, particularly on high-volume and high-speed corridors, posed a challenge to cyclists.

3.5.3 TRANSIT

Similar to active transportation, the public was generally supportive of the transit, noting that more transit is desired west of Highway 400. There are few routes that facilitate east-west movement throughout the Township and to connect the villages. In particular, the public would like a regular bus service connection between Schomberg and the Highway 400 GO Bus stop as well as between Nobleton and King City.

Another common theme with residents that use the GO rail is that it is difficult to find parking at King City GO. Residents often must drive to the GO stations due to the lack of transit routes that connect between residential areas and transit hubs. As a result, there is a high demand for parking spaces at these stations.

4 ROADS

Based on the 2016 TTS data, 85 percent of trips originating in the Township of King in the a.m. peak hour are made by auto. Given the sizable dependence on auto, it is important for the Township to maintain its road network and to provide acceptable level of service and efficient travel for the movement of goods and people.

As part of this TMP, the Township's road network was assessed for current and potential future network deficiencies. This section of the report provides a summary road network assessment which includes an investigation of the existing and future forecasted operations of the road network, a review of planned road improvements by the Township and other agencies, and a comparison of assessment alternatives, as required by the MCEA process for master plans. Based on the results of the assessment, several improvements and recommendations are proposed and a future 2031 road network is determined.

4.1 EXISTING CONDITIONS

To identify improvements, recommendations and strategies for the Township's road network, it is important to understand the current context. The conditions of the existing road network serve as the base case to assess future conditions and proposed improvements to the network. The Township's current road classification system, roadway surface conditions, and traffic operations were reviewed.

4.1.1 EXISTING ROAD CLASSIFICATION

A road network performs most efficiently and safely from both traffic operations and road safety perspectives if roads are designated and operated to serve their intended purposes. A road classification system designates streets/roads into different groups or classes according to the type of service each group is intended to provide. Grouping roads with similar functions can improve transportation planning, road infrastructure design, maintenance, traffic and road operations.

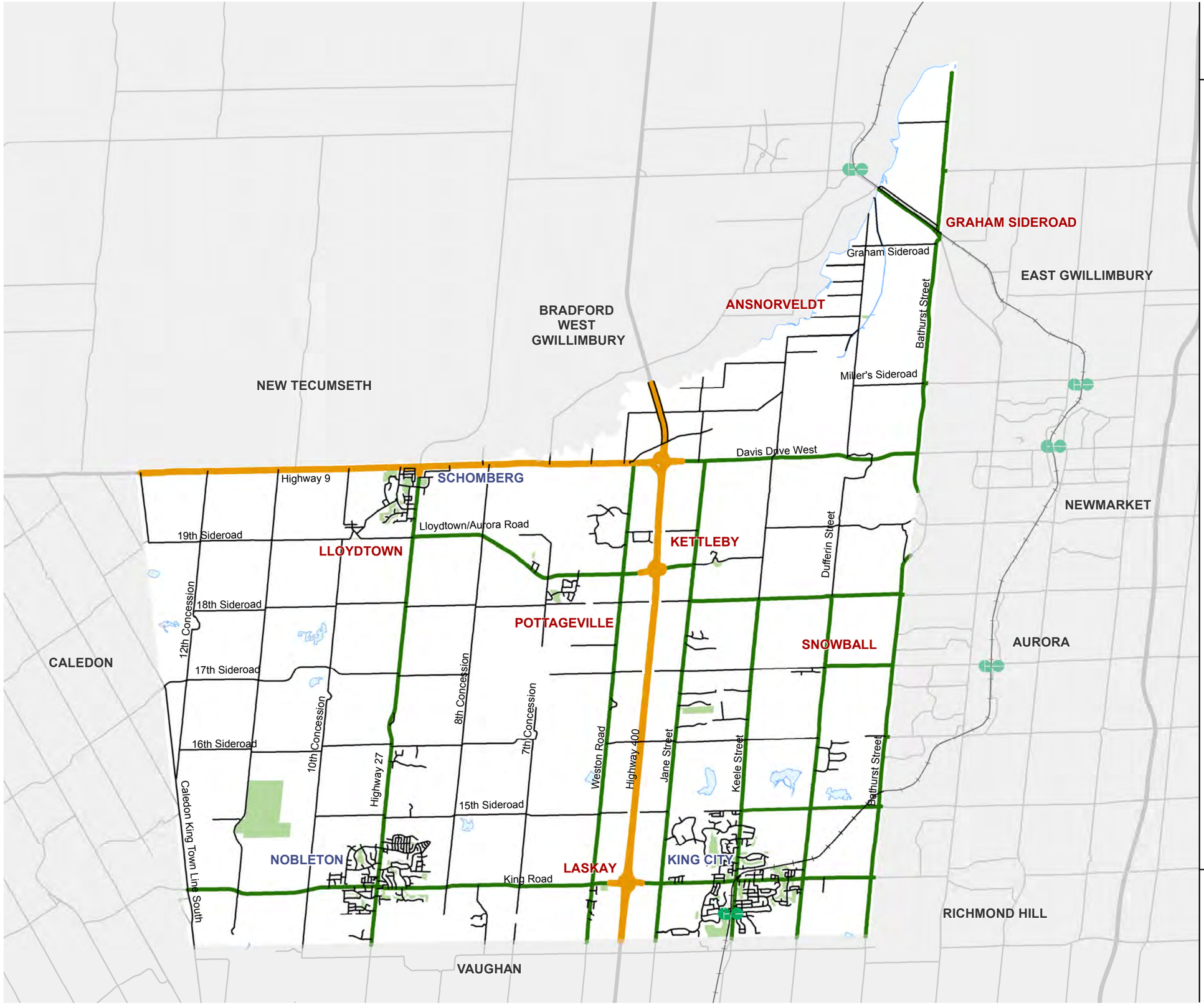
The road network in the Township of King currently comprises a hierarchy of roadways classified as provincial highway / freeways, Regional roads, and Township roads, as shown in **Figure 4-1**. Descriptions of the recognized roadway classifications within the Township of King are provided below:

- **Provincial highways / freeways** fall under the jurisdiction of the Ministry of Transportation of Ontario (MTO) and include Highway 400 and Highway 9 west of Highway 400. Freeways are limited-access high-capacity roads where traffic movement is the primary function.
- **Regional roads** fall under the jurisdiction of York Region. These roads are mainly arterial roads where their primary function is to provide through routes across and within the Township.
- **Township roads** fall under the jurisdiction of the Township of King. These roads include roads that function as collector roads connecting Regional roads and neighbourhoods, as well as local roads that provide local access to abutting properties such as residential communities and agriculture lands.

The current road classification system is focused on the roadway jurisdictions. The road classes are not defined based on the road service functions upon which typical geometric design standards are defined. The system does not account for the roadway settings such as urban and rural areas. The rural areas dominantly occupy most of the Township areas.

FIGURE 4-1
EXISTING ROAD CLASSIFICATION AND JURISDICTION

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



Waterbody

Park / Open Space

Road Classification

Provincial Highway / Freeway

Regional Road

Township Road

Other Transportation Network Features

GO Train Station

GO Train Rail Line

N

0 2.5 5 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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4.1.2 EXISTING ROADWAY SURFACE AND ROAD DISCONTINUITIES

The primary land uses in the Township of King are mainly located in several urban villages while the other large areas are in the rural areas with agriculture land uses or being undeveloped. **Figure 4-2** presents the existing roadway surface types of the roadway network: gravel and paved roads.

Paved (hard top) roads are defined as roads with an asphalt surface, concrete surface, composite pavement, portland cement or surface treatment. Gravel (unpaved / loose top) roads are defined as roads with gravel, stone or other loose material surface. Based on a review of current agency practices and literature, the most common factors used for selecting a road surface treatment include:

- Traffic volumes;
- Commercial traffic;
- Road function;
- Adjacent land use / development; and
- Agency costs.

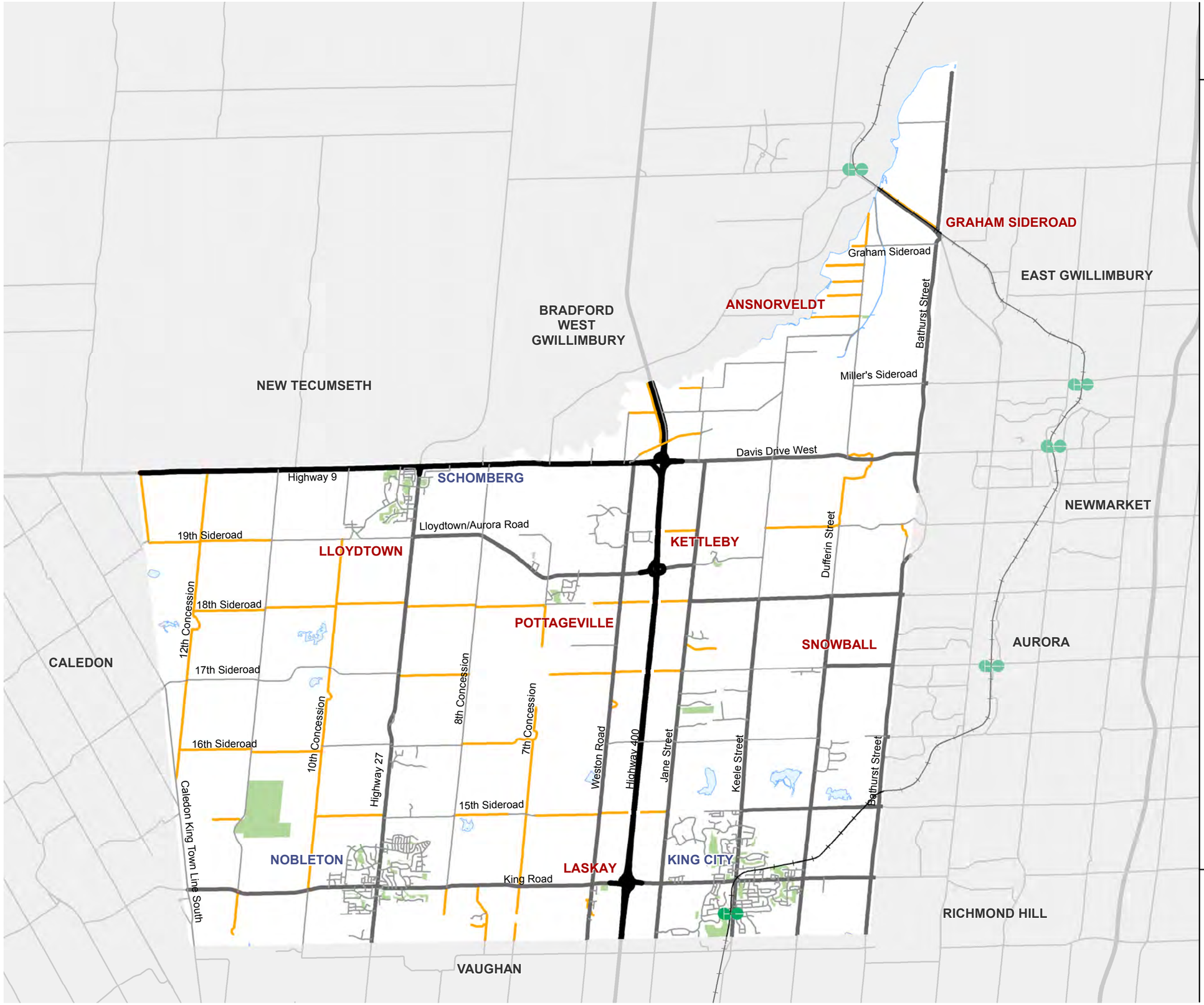
According to the Township's *2016 Road Needs Report*, approximately 30% of the Township's 300 km road network are gravel roads. King Township Council has directed that all gravel roads be paved in the next four years.

Figure 4-3 presents the number of through lanes on the existing road network. As indicated in both **Figure 4-2** and **Figure 4-3**, there is significant discontinuity in the road grid as well as discontinuity between paved and unpaved roads. The supporting grid of rural concession roads are lower in capacity than the Regional roads due to pavement surface and geometric discontinuities. Discontinuous links change travel patterns and result in relatively high traffic volumes on the Regional or Provincial roads. However, it is noted that many of these discontinuities are a result of environmentally sensitive areas and private land ownership that impact road construction.

King Road, 19th Sideroad / Lloydtown-Aurora Road, and Highway 9 are the only continuous east-west roads and have interchanges with Highway 400 within the Township's boundaries and consequently carry heavy traffic including goods movement trucks. 16th Sideroad is only the Highway 400 crossing. Due to the distant spacing of the current Highway 400 interchanges and many discontinuous east-west road segments, King Road is heavily relied on for vehicle and truck traffic destined to and from Highway 400. As a result, relatively high volumes of traffic pass through the core of King City and Nobleton.

FIGURE 4-2
EXISTING ROADWAY SURFACE

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



Waterbody

Park / Open Space

Roadway Surface

- Gravel Road
- Paved Provincial Highway / Freeway
- Paved Regional Road
- Paved Township Road

Other Transportation Network Features

- GO Train Station
- GO Train Rail Line

N

0 2.5 5 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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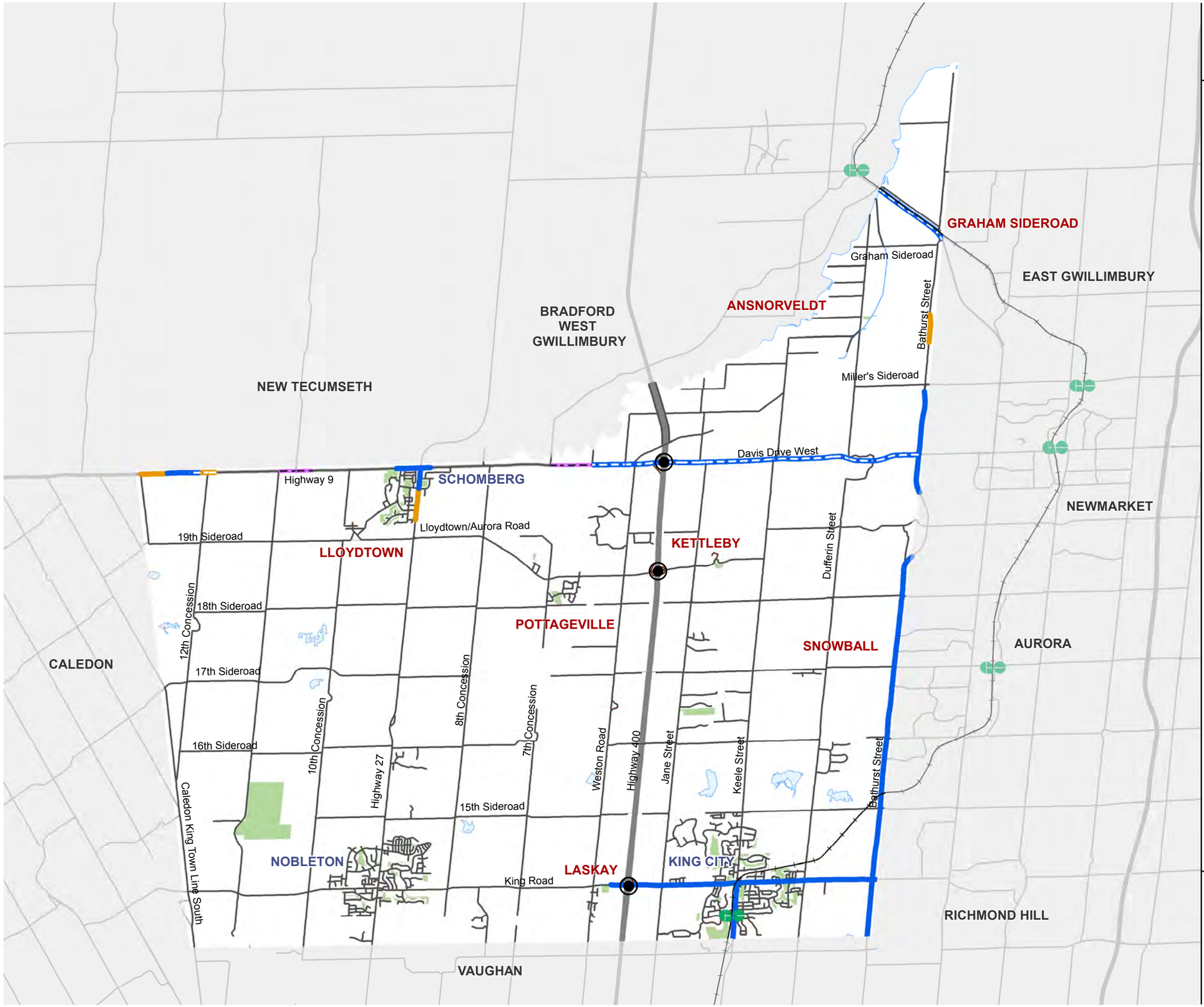
FIGURE 4-3
EXISTING TOTAL NUMBER OF VEHICLE LANES

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



Waterbody

Park / Open Space

Existing Interchange Location

Vehicle Lanes

- 1 Lane
- 2 Lanes
- 2 Lanes + 1 TWLTL [1]
- 3 Lanes [2]
- 3 Lanes [2] + 1 TWLTL [1]
- 4 Lanes
- 4 Lanes + 1 TWLTL [1]
- 6 Lanes

Other Transportation Network Features

- GO Train Station
- GO Train Rail Line

Note:
1. TWLTL: two-way left turn lane
2. 3 lanes consists of two lanes in one direction and one lane in another direction

N

0 2.5 5 km

DRAFT

Produced by:
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Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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4.1.3 EXISTING TRAFFIC CONDITIONS

A screenline analysis was conducted to examine the capability of the road network to support the existing transportation activity, as well as to determine the surplus capacity available in the existing roadway network. The screenline approach identifies the variation in routing choice and effectively makes use of the concept of supply and demand. Supply is the overall screenline capacity and demand is the total vehicular volumes crossing the screenline. The screenline analysis recognizes that, while one roadway may be projected to operate at capacity and below service standards, an adjacent road may have significant reserve capacity to divert traffic.

The auto capacity of the existing road/street network was evaluated by using a series of imaginary north-south and east-west screenlines to measure auto capacity and traffic volumes at key strategic locations. The following six screenlines (refer to **Figure 4-5** or **Figure 4-6**) were established, which were primarily based on the York Region screenlines:

1. North Boundaries:
   - 1A South of Highway 9, West of Highway 400; and
   - 1B North of Highway 9, East of Highway 400;
2. West of Highway 400;
3. West Boundary;
4. East Boundary;
5. South Boundary; and
6. East of Highway 400.

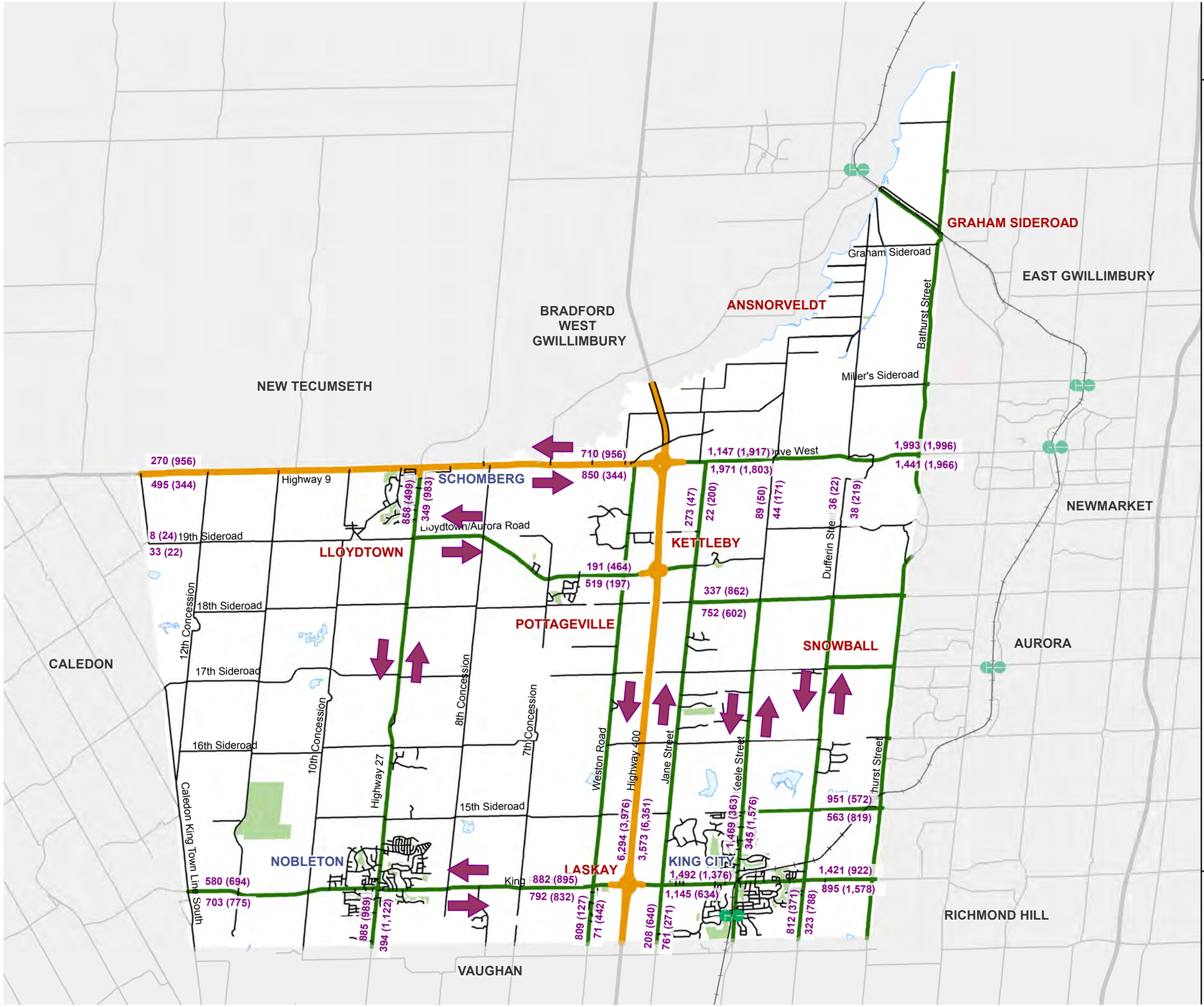
To understand the current roadway conditions and to set a baseline for the roadway analysis, the most recent weekday a.m. and p.m. peak hour counts available were collected from the Township of King, York Region, and the Ministry of Transportation of Ontario (MTO). The data available were surveyed between 2011 and 2019. The counts were grown to 2019 volumes by applying a compound annual growth rate of 2.1%, which was derived from the Township's population growth data. Existing 2019 a.m. and p.m. peak hours are shown in **Figure 4-4**. The lane capacities of the roadways were based on the York Region's Emme Model.

The resulting relationship between supply and demand is expressed as a volume-to-capacity ratio (v/c). Based on findings and thresholds adopted by other jurisdictions in the Greater Toronto Area, a screenline v/c ratio threshold of 0.9 was used. Screenlines with a v/c ratio of less than 0.9 are considered to have adequate capacity, whereas screenlines at 0.9 or above should be considered for transportation improvements.

Figure 4-5 and **Figure 4-6** present the v/c ratios at the analyzed screenlines as well as the individual roads with capacity deficiencies.

FIGURE 4-4
EXISTING NETWORK SCREENLINE VOLUMES

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



Waterbody

Park / Open Space

Existing Road Classification

Provincial Highway / Freeway

Regional Road

Township Road

Other Transportation Network Features

GO Train Station

GO Train Rail Line

XXX (XXX) AM Peak Hour Volumes (PM Peak Hour Volumes)

N

0 2.5 5 km

KING

wsp

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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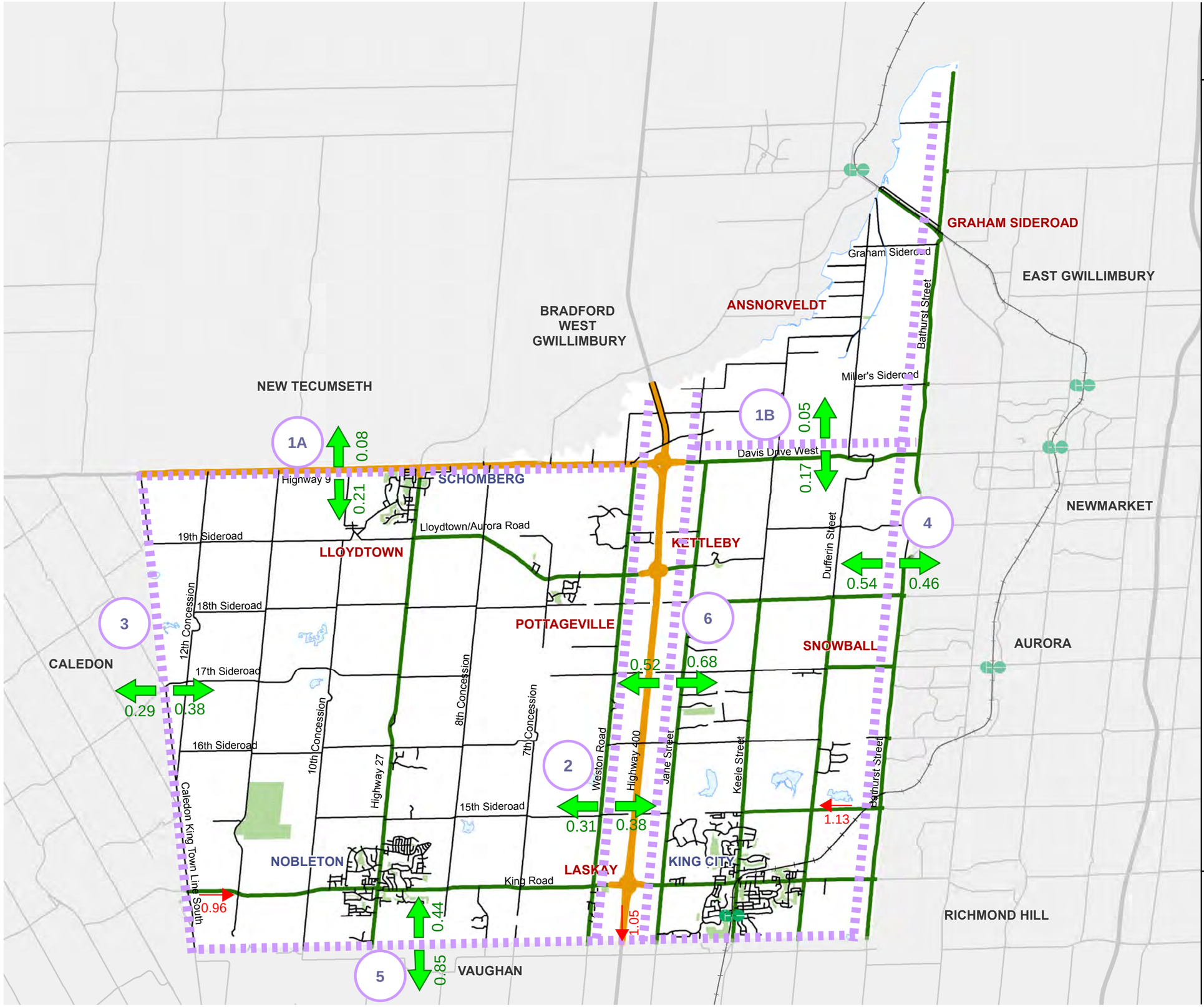
FIGURE 4-5
EXISTING NETWORK SCREENLINE ANALYSIS - AM PEAK HOUR

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



Existing Road Classification

- Provincial Highway / Freeway
- Regional Road
- Township Road

Other Transportation Network Features

- GO Train Station
- GO Train Rail Line

Screenline Network

- 1A - North Boundary - South of Highway 9, West of Highway 400
- 1B - North Boundary - North of Highway 9, East of Highway 400
- 2 - West of Highway 400
- 3 - West Boundary
- 4 - East Boundary
- 5 - South Boundary
- 6 - East of Highway 400

- Overall Screenline Volume/Capacity Ratio (V/C > 0.9)
- Overall Screenline Volume/Capacity Ratio (V/C ≤ 0.9)
- Road Volume/Capacity Ratio (V/C > 0.9)

0 2.5 5 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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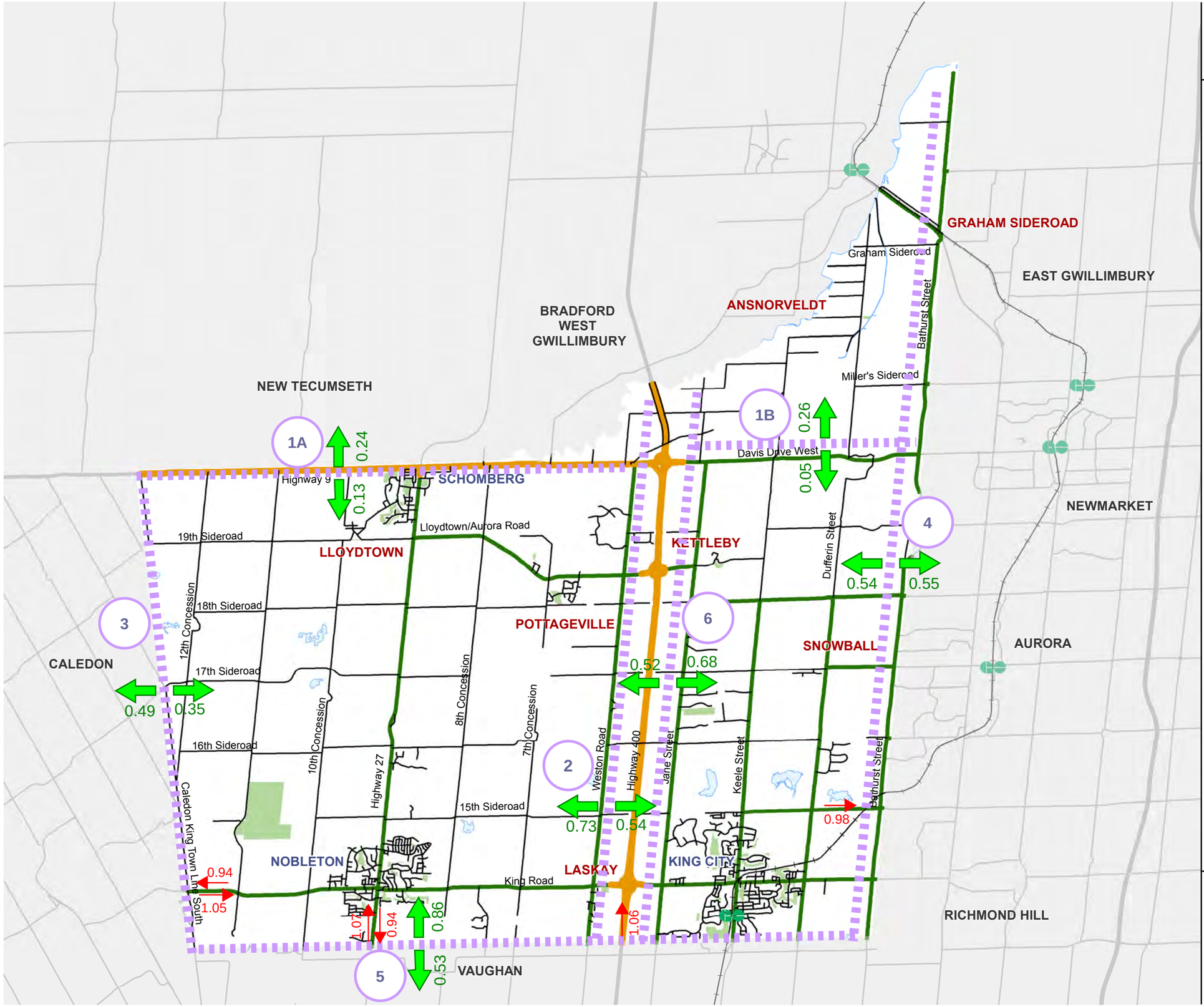
FIGURE 4-6
EXISTING NETWORK SCREENLINE ANALYSIS - PM PEAK HOUR

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



Waterbody

Park / Open Space

Existing Road Classification

Provincial Highway / Freeway

Regional Road

Township Road

Other Transportation Network Features

GO Train Station

GO Train Rail Line

Screenline Network

1A - North Boundary - South of Highway 9, West of Highway 400

1B - North Boundary - North of Highway 9, East of Highway 400

2 - West of Highway 400

3 - West Boundary

4 - East Boundary

5 - South Boundary

6 - East of Highway 400

Overall Screenline Volume/Capacity Ratio (V/C > 0.9)

Overall Screenline Volume/Capacity Ratio (V/C ≤ 0.9)

Road Volume/Capacity Ratio (V/C > 0.9)

N

0 2.5 5 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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March 2020

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Figure 4-7 and **Figure 4-8** present the overall traffic volumes versus the total capacity at each screenline during the a.m. and p.m. peak hours, respectively.

Figure 4-7: Screenline Assessment, Existing (2019) AM Peak Hour

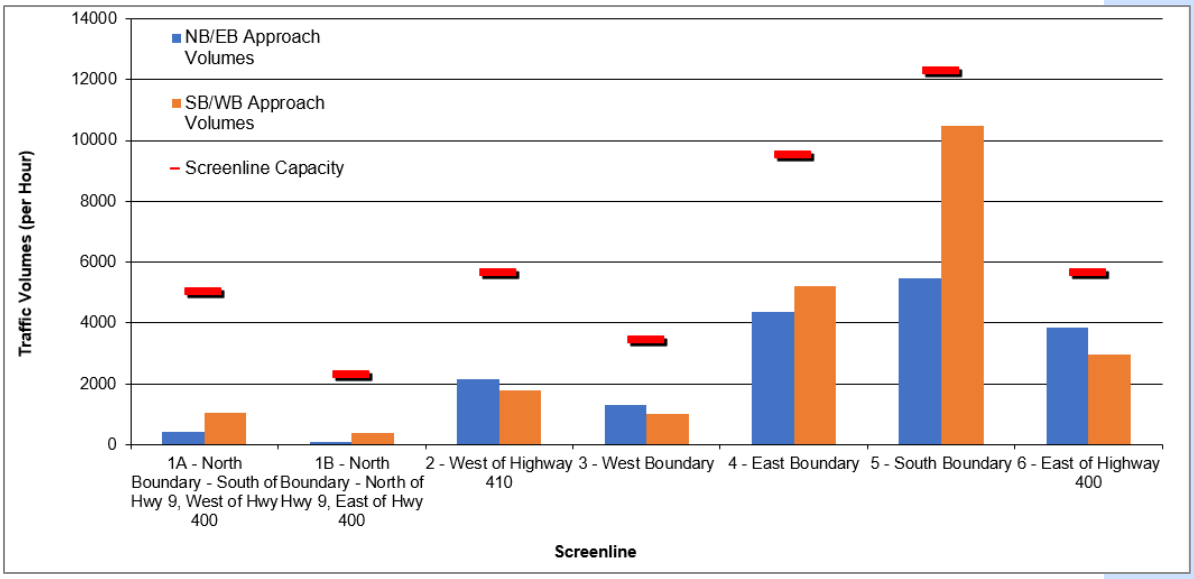
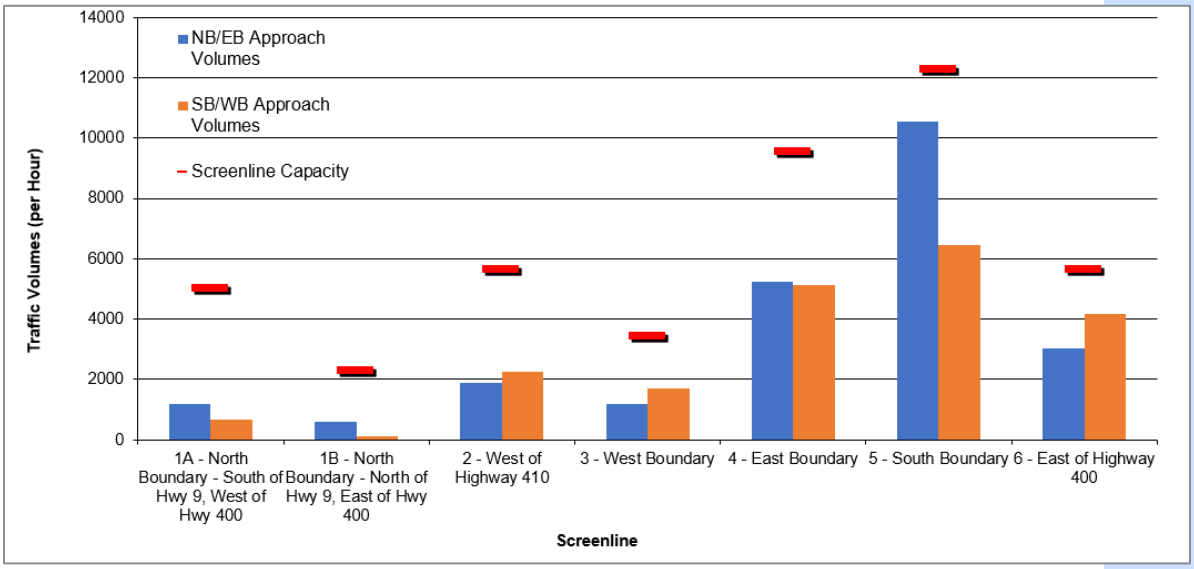


Figure 4-8: Screenline Assessment, Existing (2019) PM Peak Hour



Overall, the total traffic volumes are below the total capacity at all screenlines during the a.m. and p.m. peak hours, respectively, and the screenline v/c ratios are less than 0.9. However, the following individual links in the existing network experiences v/c greater than 0.9 in the peak hours:

- The westbound traffic along King Road across Screenline No.3 (West Boundary) operates at a v/c of 0.96 in the a.m. peak hour and 0.94 in the p.m. peak hour. Similarly, the eastbound traffic operates at a v/c of 1.05 in the p.m. peak hour;
- The westbound traffic along 15th Sideroad across Screenline No.4 (East Boundary) operates at a v/c of 1.13 in the a.m. peak hour. Similarly, the eastbound traffic operates at a v/c of 0.98 in the p.m. peak hour;
- The northbound traffic along Highway 27 across Screenline No.5 (South Boundary) operates at a v/c of 1.06 in the a.m. peak hour. The southbound traffic operates at v/c 0.94 in the p.m. peak hour; and
- The southbound traffic along Highway 400 across Screenline No.5 (South Boundary) operates at a v/c of 1.05 in the a.m. peak hour. Similarly, the northbound traffic operates at a v/c of 1.06 in the p.m. peak hour.

The results of the existing screenline analysis reveal that overall the network has capacity to accommodate the traffic demand within the boundaries of the Township. However, there are roadways that are significantly preferred over others and thus operate near capacity. These roadways typically are higher classification roadways such as Regional roads and Provincial highways.

The detailed v/c calculations for each screenline and its crossing individual links are provided in **Appendix C**.

Additional traffic assessments were completed for the major Township roads within the three villages. To encapsulate the growth in traffic experienced by each village, the derived population growth rate for each respective village: King City (5.5%), Nobleton (1.4%), Schomberg and Lloydtown (0.5%), were applied to adjust the current traffic counts to the year 2019. It was found that peak hour volumes on these roadways are relatively low and the analysis reveals that all roadways operate within capacity. A summary of the analysis is provided in **Appendix C**.

4.2 PLANNED ROAD IMPROVEMENTS

Several transportation improvements were recommended within the Township of King boundaries or adjacent by a variety of organizations, including York Region and MTO. The recommended improvements were considered in the assessment of the Township's future transportation network.

The following sections summarize the recommended roadway improvements by horizon year 2031, as well as beyond 2031.

4.2.1 MINISTRY OF TRANSPORTATION OF ONTARIO

The MTO Southern Highway Program (2016) outlined various planned projects on MTO jurisdictional highways from 2016 to 2020. As per the program, MTO plans to widen Highway 400 from Major Mackenzie Drive to King Road from six to eight lanes by 2020 to accommodate high occupancy vehicle (HOV) lanes. The widening of Highway 400 will continue north to Canal Road beyond 2020. This improvement is expected to increase the capacity of the Highway 400.

The York Region TMP (2016) recommended to widen Highway 9 from two to four lanes between Highway 27 and east of West Canal Bank Road by 2027-2039. Highway 9 provides access to Highway 400 and is one of the only major continuous east-west road that currently carries significant traffic volumes.

As shown in **Figure 4-9**, the proposed GTA West Corridor directly south of the Township will have an impact on the future traffic patterns. MTO presently is conducting an Environmental Assessment (EA) for the GTA West Corridor. The study is investigating a proposed new highway corridor that will extend from Highway 400, between Kirby Road and King-Vaughan Road, to Highway 401/407 ETR in Milton. The corridor may feature a transitway and potential goods movement priority features. As per the York Region TMP (2016), the GTA West Corridor is planned for horizon year 2027-2031. As shown in **Figure 4-9**, there will be three potential interchange locations directly south of the Township's southern boundary that would have potential effects on the Township.

Figure 4-9: Preferred GTA West Corridor Intersection Locations, East Section of Study Area

12	**Highway 27 interchange – Aligns with Technically Preferred Route for Section 8**
13	**Pine Valley Drive Interchange or Partial Interchange at Weston Road: Partial interchange at Weston Road preferred** • An interchange to the west of Highway 400 provides a desirable connection with the municipal road network • Pine Valley Drive is not continuous north or south of the study area and there are no planned urban growth centres along Pine Valley Drive • Weston Road provides a connection to a planned urban growth centre
14	**Highway 400 freeway-to-freeway interchange – Aligns with Technically Preferred Route for Section 9**

Source: GTA West PIC #2

The GTA West Corridor would provide an increased accessibility to west GTA for the Township residents. The Corridor could potentially result in long-term benefits for the Township, including reduced travel time for the Township commuters and more efficient goods movements.

The planned interchange at Highway 27 will be directly south of the village of Nobleton. This may result in additional traffic along the Highway 27 corridor and through the core of Nobleton. As documented in the York Region TMP (2016), there are plans to widen Highway 27 from two lanes to four lanes between Major Mackenzie Drive and Highway 9 by 2022-2041.

The GTA West Corridor could potentially change travel patterns on the east-west roads parallel to the Corridor, such as King Road that currently carries high volumes of local and inter-regional traffic. It is important to note that King Road passes through the core of two major Villages in the Township - Nobleton and King City.

A partial interchange at Weston Road would potentially increase traffic along this corridor. Weston Road is a Regional road that currently carries high volumes of local, and inter-regional traffic. Weston Road is recommended by York Region to be widened from two to four lanes between King Road and Teston Road by 2027-2041.

The construction of a new major freeway would encourage development by the interchanges as well as along roads leading to the interchanges, such as Highway 27 and Weston Road. As mentioned in **Figure 4-9**, a planned urban growth centre is proposed to be connected to the proposed partial interchange at Weston Road. The growth in development will generate additional traffic and change the land use of the surrounding areas. The Township should consider working with the Region and neighbouring municipalities such as Vaughan to assess any land use impacts and implement land use policies to mitigate any potential impacts.

To the north of the Township's boundaries, the Bradford By-pass highway was initially proposed by the MTO, but is not presently programmed for construction. The Bradford By-pass has been previously proposed as a four-lane highway that will provide an east-west connection between Highway 400 in Bradford West Gwillimbury and Highway 404 in the Town of East Gwillimbury. This new highway could help reduce the east-west traffic in the Township travelling to Highway 400.

A summary of the MTO planned roadway projects within and near the Township by horizon year 2031 is provided in **Table 4-1.**

Table 4-1: MTO Planned Highway Improvements by 2031

Road	From	To	Improvement	Phase
Highway 400	Major Mackenzie Drive	King Road	Highway 400 Lane Expansion Project, HOV lanes	2016-2020
Highway 400	King Road	Canal Road	Highway 400 Lane Expansion Project, HOV lanes	Beyond 2020
Highway 9	Highway 27	east of West Canal Bank Road	Widen from 2 to 4 lanes.	2027-2039
GTA West Corridor			Potential new east-west highway south of the Township. Several potential interchanges proposed as part of the corridor may impact traffic in the Township.	2027-2031

Source: MTO

4.2.2 YORK REGION

The York Region TMP (2016) recommends roadway improvements up to horizon year 2041. This section summarizes the Region's recommended improvements within the Township by horizon year 2031 and 2041.

Although the planning horizon year of this TMP update is 2031, road improvements beyond 2031 within the Township boundaries are also documented to indicate the future planning that has taken place. By reviewing the Region's plan, it would help to identify the needs on the Township roads in response to the future network changes.

Previous studies have recommended specific improvements to the King Road and Keele Street intersection, and the area to enhance the quality of life and improve multi-modal traffic flow. In July 2017, York Region carried out a functional design and parking capacity study of this intersection and in October 2018, the Township prepared the Core Areas Parking Study that also addressed this intersection. The findings and recommendations documented in the associated reports should be revisited in the short term with an eye towards next steps for implementation of recommended improvements that include improving intersection capacity by reducing parking and implementing dedicated northbound and southbound left-turn lanes.

4.2.2.1 BY 2031

Table 4-2 lists York Region's recommended improvement to the roads located within the Township of King by 2031.

Table 4-2: Region Recommended Road Improvements by 2031

ROAD	FROM	TO	IMPROVEMENT	PHASE
Highway 27	Major Mackenzie Drive	King Road	Widen from 2 lanes to 4 lanes	2022-2026
Jane Street	200 metres north of King Road		East Humber River Bridge Rehabilitation	2020
King Road	800 metres east of Highway 400		King Horn Bridge Rehabilitation	2020

Source: York Region 2016 Transportation Master Plan and 2019 York Region 10-year Capital Construction Program

Based on the York Region TMP, Highway 27 was recommended to be widened from two to four lanes between Major Mackenzie Drive and King Road by 2022 to 2026. Highway 27 is a major north-south arterial road that runs through Nobleton and serves as alternative roadway to Highway 400. It experiences relatively high volumes of traffic and the additional capacity south of King Road will benefit Nobleton residents.

Based on the York Region's 10-year Capital Construction Program, two bridge rehabilitation projects are planned on Jane Street near King Road and King Road near Highway 400.

4.2.2.2 BEYOND 2031

York Region recommends widening many of the Regional roads within the Township, namely roadways serving King City and Nobleton. Widenings of existing two lanes roads to four lanes are expected at Dufferin Street, Jane Street, Weston Road, King Road, 15th Sideroad, and Highway 27. York Region also has indicated a new interchange on Highway 400 at 15th Sideroad by 2041. However, this interchange may potentially be impacted by the recommendations of the freeway-to-freeway interchange in the GTA West Transportation Corridor Study. It will be confirmed by the future Mid-York East-West Corridor Study.

A summary of the recommended improvements between 2032 and 2041 is provided in **Table 4-3**.

Table 4-3: Region Recommended Road Improvements Beyond 2031

Road	From	To	Improvement
15th Sideroad	Highway400	Bathurst Street	New construction (Jane to Keele Street); Widen from 2 lanes to 4 lanes
15th Sideroad	West of Bathurst Street		Barrie GO rail grade separation
15th Sideroad	Highway400		Future interchange
Dufferin Street	North of King Road		Barrie GO rail grade separation
Highway27	King Road	Highway9	Widen from 2-3 lanes to 4 lanes
Dufferin Street	Teston Road	15th Sideroad	Widen from 2 lanes to 4 lanes
King Road	Caledon-King Townline	Highway400	
King-Vaughan Road	7th Concession	Bathurst Street	
Jane Street	King-Vaughan Road	15th Sideroad	
Weston Road	King-Vaughan Road	King Road	

Source: York Region 2016 Transportation Master Plan

4.2.3 TOWNSHIP OF KING

The Township has identified several capital road projects, which include upgrading Township gravel roads to asphalt and repaving several asphalt roads. A summary of these planned projects by the Township is provided in **Table 4-4**.

Table 4-4: Township Planned Road Projects

ROADWAY	FROM	TO	IMPROVEMENT
10th Concession	King Road	15th Sideroad	Upgrade gravel road to asphalt
10th Concession	17th Sideroad	19th Sideroad	
18th Sideroad	11th Concession	10th Concession	
18th Sideroad	8th Concession	10th Concession	
18th Sideroad	8th Concession	7th Concession	
Laskay Lane	Entire length of the roadway		
Mill Street	Entire length of the roadway		
Old Bathurst Street	19th Sideroad	Bathurst Street	
Old Church Road	Entire length of the roadway		
South Canal Bank Road	Highway 9	Jane Street	
15th Sideroad	10th Concession	Highway 27	Repave asphalt road
19th Sideroad	West of 7th Concession		
7th Concession	Lloydtown/Aurora Road	18th Sideroad	
7th Concession	Lloydtown/Aurora Road	19th Sideroad	
8th Concession	Highway 9	18th Sideroad	
Bell Lake Road	Entire length of the roadway		
Centre Street	Rebellion Way	Church Street	
Centre Street	Rebellion Way	0.1 km West of Rebellion Way	
Centre Street	0.1 km West of Rebellion Way	0.2 km West of Rebellion Way	
Dearbourne Avenue	Off Keele Street 750m	Off Jane Street 1120m	
Dr. Kay	Main Street	Highway 27	
Dufferin Street	18th Sideroad	19th Sideroad	
Keele Street	Kettleby Road	19th Sideroad	
King Street	Keele Street	Drainage Canal	
Lloydtown Road	Highway 27	Rebellion	
Lockhart Lane	Entire length of the roadway		
Queen Street	Rebellion Way	10th Concession	
Rebellion Way	Lloydtown/Aurora Road	Centre Street	
Rebellion Way	Centre Street	Queen Street	
Victoria Street	Rebellion Way	East End	

Source: The Township of King Road Improvement Plan, 2019. Table updated as of February 11, 2020.

4.3 FUTURE TRAFFIC CONDITIONS

Similar to existing screenline assessment discussed in **Section 4.1.3**, a screenline assessment was also completed with the 2031 forecasted volumes to identify any potential capacity issues in the future. Note that the assessment is based on hypothetical volumes predicted for the future and are not actual values.

The future 2031 traffic volumes were forecasted by the following approaches:

1. The existing peak hour traffic counts of the different count survey years on roads outside the three villages were adjusted to the year 2019 by applying a compound annual growth rate of 2.1%, which was derived from the Township's population growth forecast.
2. To reflect the changes in traffic resulting from the regional road network changes, as well as the forecasted population and employment growth in the Township, the difference in the forecasted a.m. peak hour volumes from the York Region Travel Demand Forecasting (YRTDF) Model for the base year and the future year 2031 were added to the adjusted traffic counts to obtain the future 2031 a.m. peak hour traffic volumes.

   The YRTDF Model was built using the EMME/2 software by Inro Inc., and is predominantly used by the Region to evaluate network improvements and travel-related behaviour changes. Note that the YRTDF Emme Model was run with the most current population and employment forecasts provided by the Township. The Emme network assumptions included the recommended improvements by the Region and MTO.
3. As the YRTDF Model only modelled the a.m. peak hour traffic, it was assumed that the p.m. peak hour travel behaviour was the reverse of the a.m. peak hour. The difference in the a.m. peak hour traffic volumes forecasted by the York Region's Emme Model was reversed by direction of travel along the link and were added to the p.m. traffic counts to obtain the future 2031 p.m. peak hour traffic volumes.

The forecasted 2031 a.m. and p.m. peak volumes hours are shown in **Figure 4-12**.

The YRTDF model is a commuter-based model. Since the forecasted traffic volumes include trucks, the lane auto capacities from the Emme model were factored up by 5% to estimate the lane mixed-traffic capacity. In the case of Highway 400, the lane auto capacity was factored up by 10% to account for the additional capacity for truck traffic.

As shown in **Figure 4-10** and **Figure 4-11**, the overall screenline a.m. and p.m. traffic volumes are below each respective screenline's capacity. The a.m. and p.m. peak hour v/c ratios of the screenlines are also summarized in **Figure 4-13** and **Figure 4-14**, respectively.

Overall, the screenline v/c ratios are less than 0.9. However, the following links are forecasted to experiences v/c greater than 0.9 by horizon year 2031:

- → The westbound traffic along 15th Sideroad across Screenline 4 (East Boundary) would operate at a v/c of 1.13 and 0.93 in the a.m. and p.m. peak hours, respectively. The eastbound traffic would operate at a v/c of 0.92 and 0.98 in the a.m. and p.m. peak hours, respectively. It should be noted that York Region recommends widening 15th Sideroad from two to four lanes between Highway 400 to Bathurst Street by 2032 to 2041. The Township and the Region should discuss and consider widening the road prior to 2032.
- → The southbound traffic along Highway 27 across Screenline 5 (South Boundary) would operate at a v/c of 0.95 in the a.m. peak hour. The northbound traffic would operate at a v/c 1.07 in the p.m. peak hour. The screenline assessment considers the widening of Highway 27 from two to four lanes between Major Mackenzie Drive and King Road. Despite the widening, Highway 27 is forecast to operate near or over capacity in the peak hours. The Township plans to pave the gravel road on 10th Concession from King Road to 15th Sideroad.

This would add additional capacity at the screenline and provide an alternative road for some traffic diverting off Highway 27.

→ The southbound traffic along Weston Road across Screenline 5 (South Boundary) would operate at a v/c of 1.03 in the a.m. peak hour. York Region recommends widening Weston Road from 2 to 4 lanes between King Road and Teston Road by 2032-2041.

The v/c calculations for each of the screenline links are provided in **Appendix C**.

Figure 4-10: Future 2031 Traffic Volumes versus Capacity at Screenlines, AM Peak Hour

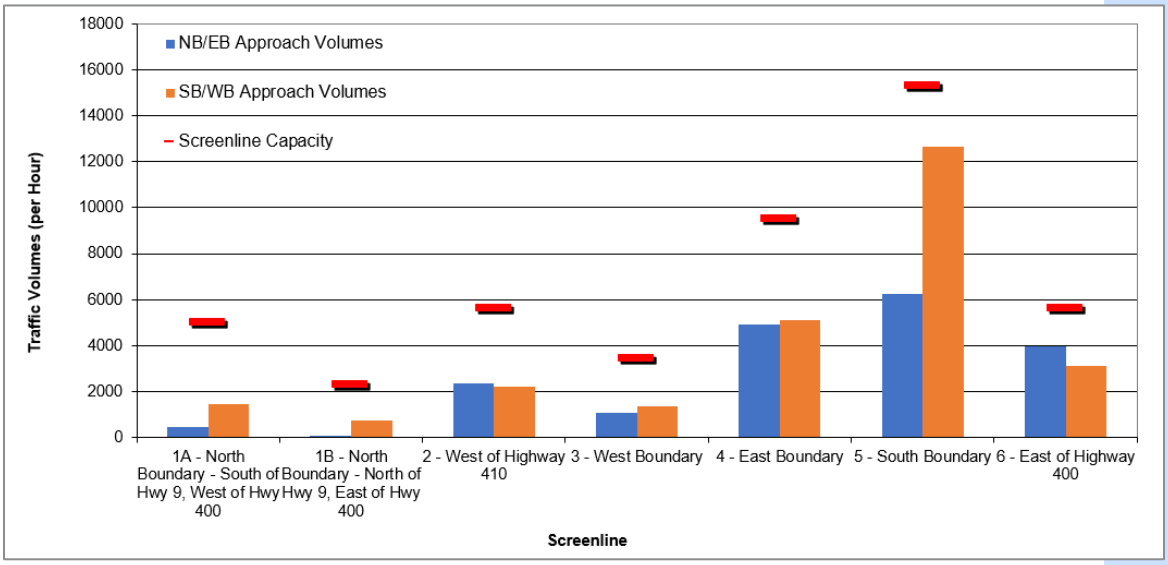
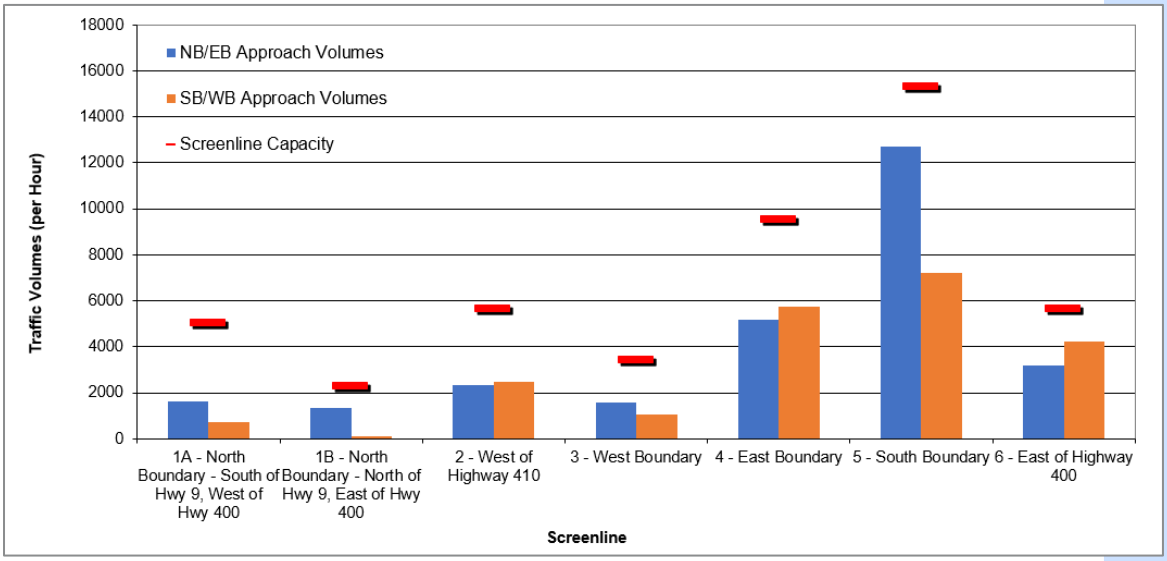


Figure 4-11: Future 2031 Traffic Volumes versus Capacity at Screenlines, PM Peak Hour



Additional traffic assessments were completed for the major Township roads within the three villages. To encapsulate the growth in traffic experienced by each village, the population growth rate for each respective village was applied to the traffic counts to estimate future 2031 traffic volumes. The following compound annual growth rates were applied for each village: King City (5.5%), Nobleton (1.4%), Schomberg and Lloydtown (0.5%). It was found that peak hour volumes on these roadways are relatively low and thus the analysis results reveal that all roadways would operate well below capacity. A summary of the analysis is provided in **Appendix C**.

FIGURE 4-12
2031 FUTURE NETWORK SCREENLINE VOLUMES

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

Existing Road Classification

- Provincial Highway / Freeway
- Regional Road
- Township Road

Other Transportation Network Features

- GO Train Station
- GO Train Rail Line
- XXX (XXX) AM Peak Hour Volumes (PM Peak Hour Volumes)

- Waterbody
- Park / Open Space

N

0 2.5 5 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

This map is illustrative only. Do not rely on it as being a precise indicator of routes, locations of features, nor as a guide to navigation. The Township of King shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.

March 2020

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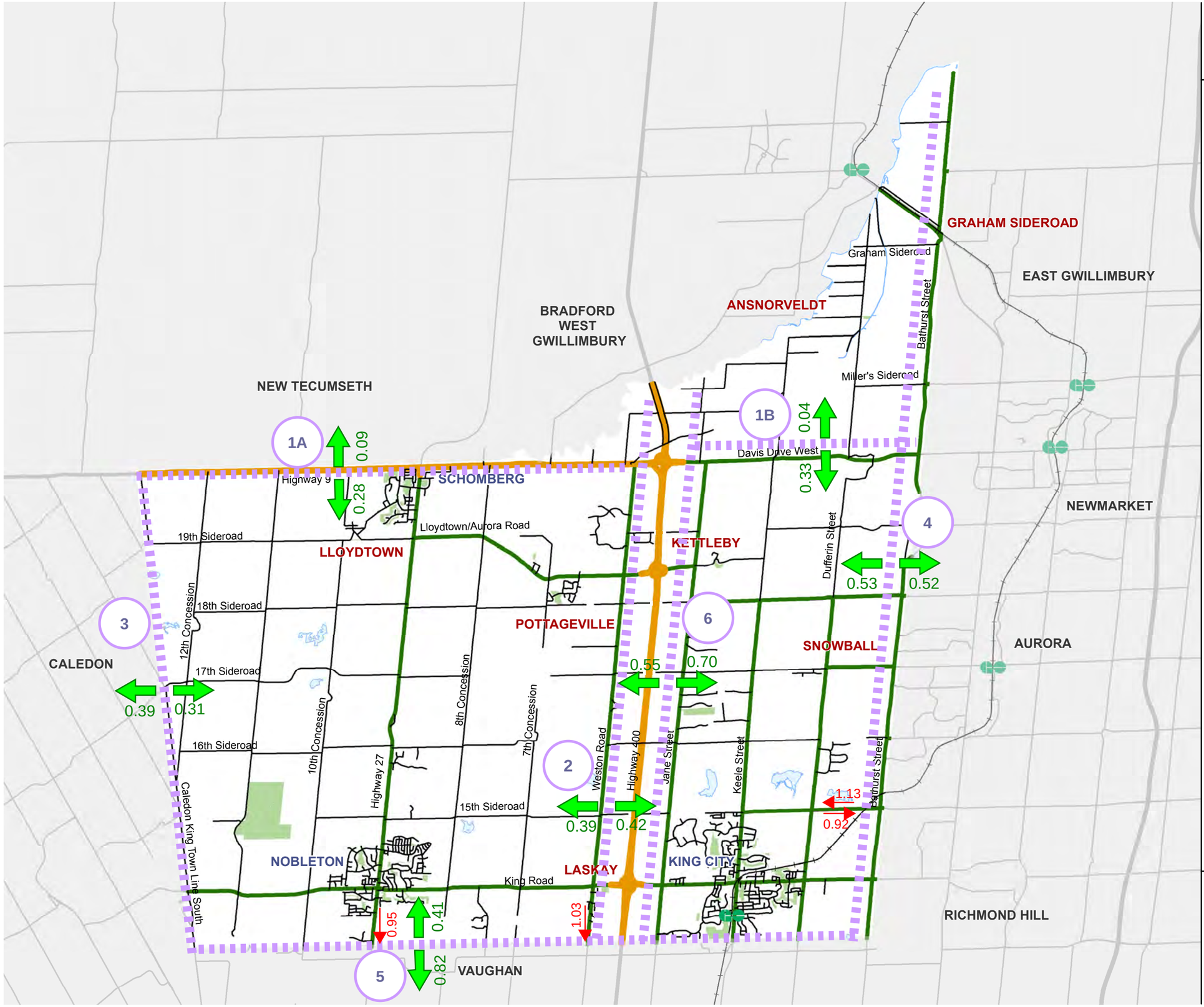
FIGURE 4-13
2031 FUTURE NETWORK SCREENLINE ANALYSIS - AM PEAK HOUR

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



Waterbody

Park / Open Space

Existing Road Classification

- Provincial Highway / Freeway
- Regional Road
- Township Road

Other Transportation Network Features

- GO Train Station
- GO Train Rail Line

Screenline Network

- 1A - North Boundary - South of Highway 9, West of Highway 400
- 1B - North Boundary - North of Highway 9, East of Highway 400
- 2 - West of Highway 400
- 3 - West Boundary
- 4 - East Boundary
- 5 - South Boundary
- 6 - East of Highway 400

- Overall Screenline Volume/Capacity Ratio (V/C > 0.9)
- Overall Screenline Volume/Capacity Ratio (V/C ≤ 0.9)
- Road Volume/Capacity Ratio (V/C > 0.9)

N

0 2.5 5 km

KING

wsp

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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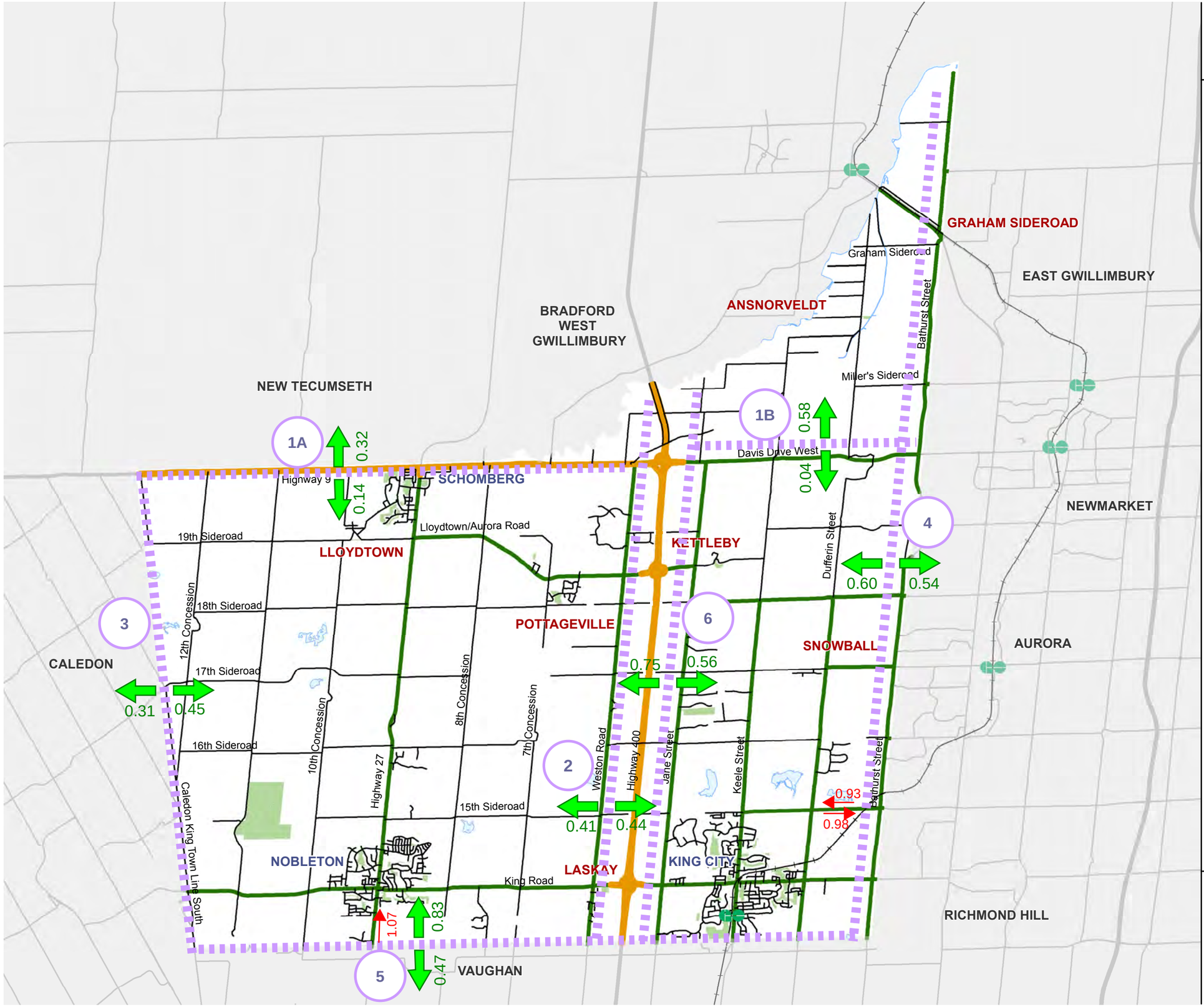
FIGURE 4-14
2031 FUTURE NETWORK SCREENLINE ANALYSIS - PM PEAK HOUR

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



Existing Road Classification

- Provincial Highway / Freeway
- Regional Road
- Township Road

Other Transportation Network Features

- GO Train Station
- GO Train Rail Line

Screenline Network

- 1A - North Boundary - South of Highway 9, West of Highway 400
- 1B - North Boundary - North of Highway 9, East of Highway 400
- 2 - West of Highway 400
- 3 - West Boundary
- 4 - East Boundary
- 5 - South Boundary
- 6 - East of Highway 400

- Overall Screenline Volume/Capacity Ratio (V/C > 0.9)
- Overall Screenline Volume/Capacity Ratio (V/C ≤ 0.9)
- Road Volume/Capacity Ratio (V/C > 0.9)

N

0 2.5 5 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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March 2020

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4.4 ASSESSMENT OF ALTERNATIVES

To complete Phase 2 of the MCEA process for master plans, one of the major objectives of the TMP is to determine whether if the existing roadway network is capable of support the current and future traffic in the Township, as well as to determine if the currently planned improvements are sufficient or additional improvements may be needed. To systematically assess these items, the following three groups of alternative solutions were assessed:

Do Nothing	2015 TMP	2020 TMP
1. Construct only what is currently funded and then stop all further investment in transportation	2. Implement all projects recommended in the 2015 King Transportation Master Plan (TMP)	3. Implement all 2015 projects and new proposed projects

- Alternative 1 – "Do Nothing": **Section 4.1** provides the assessment of the existing conditions of the "Do Nothing" road network in the aspects of traffic conditions, road classification, network connectivity, and road surface.
- Alternative 2 – "2015 TMP": In **Section 4.2**, planned roadway projects as well as a summary of the 2015 King TMP recommendations were discussed. **Section 4.3** provides the screenline assessment of the future 2031 traffic conditions of the road network, which included all the planned improvements and the 2015 TMP recommended collector roads. This alternative was the baseline for the 2020 TMP and identify any potential issues that may require additional improvements.
- Alternative 3 – "2020 TMP": The proposed road network in this TMP is presented in **Section 4.5**, which includes the proposed roadway classification, number of vehicle lanes, rights-of-way, roadway surface upgrade, goods movements, and road upload to Region. The screenline assessment of the future 2031 traffic conditions for this alternative is provided in **Appendix C**.

Based on the assessments of the scenarios completed, it is evident that the Township still faces significant transportation challenges in Provincial, Regional and Township roadway networks within the Township boundaries. Circuitous street connectivity and conventional road classification systems reflect several transportation challenges that exist today. Road alignment discontinuity, local road access to arterials, arterial to collector connections, and few continuous roadways across the Township boundaries are reflected in automobile dependent land uses. The three villages will experience additional future growths. Furthermore, the forecasted future 2031 traffic conditions are expected to experience some capacity issues on Regional Roads even with the currently planned improvements in place.

Therefore, it is proposed that the "2020 TMP" scenario is the preferred alternative. The next section of this report discusses the proposed improvements and recommendations to address the issues identified.

4.5 PROPOSED ROAD NETWORK

As identified in **Sections 4.1** to **4.4**, the current and future planned Township's road network has several deficiencies. This section summarizes road improvements and a recommended 2031 future road network to address the issues identified.

4.5.1 ROADWAY CLASSIFICATION

As the Township of King continues to face growth, a sound road classification is an essential requirement. A road classification system is required to guide the design and construction of new roadways as well as to provide guidance on appropriate changes for existing road facilities.

A roadway hierarchy will also benefit the Township by providing:

- Priorities for road maintenance and snow clearance;
- Priorities for improving active transportation (trails, sidewalks, bike paths); and
- Priorities for emergency vehicles.

The objective of this TMP is to arrive at a functional classification of roads that balances the land access and mobility needs and supports user choice of a full range of travel modes. Available industry standards and best practices of classification systems of other municipalities were reviewed. This classification is proposed based on the guidelines recommended in the Transportation Association of Canada (TAC). The TAC classification system classifies roads based on differences in traffic service, land service, design features and operational needs associated primarily with adjacent land use. A separate classification system is identified for the different roadway settings: urban and rural.

The proposed Township road classification criteria for rural and urban roads are provided in **Table 4-5** and **Table 4-6**, respectively. Any roads located within the villages of King City, Nobleton, Lloydtown or Schomberg are defined as urban roads. The definitions of each category include:

1. Rural Arterial Roads:

   Their primary functions are to provide regional vehicular movement, goods movement, transit priority and active transportation to support residential, commercial and industrial (suburban) uses. Features include cycle tracks or multi-use paths, rapid transit, goods movement supportive, limited private access (consolidation of accesses), and moderate to high road speeds. These roadways are potential candidates to be uploaded to Regional roads as they essentially perform regional functions.

2. Urban Collector Roads:

   The primary function of collector roads is to connect local areas to arterials roads. Urban collector roads are typically used by local traffic with limited through traffic. Trucks are sometimes permitted during the day. Private accesses and parking can also be permitted if required. Urban collector roads also accommodate the needs of pedestrians and cyclists through the provision of footways, cycling facilities, and other associated infrastructure.

   A signature collector road is a subset of the urban collector road classification. This subset applies to collector roads within the urban built boundary with unique geometry, intersection designs, and varying cross-sections (including pedestrian and cycling facilities, asphalt widths and rights-of-way). The variation in these elements contribute to a unique roadside environment and hence the 'signature' feel to the road. In these circumstances, the signature collector road classification is applied to recognize and protect the character of the existing community.

3 Rural Collector Roads:

Their primary functions are to provide regional and inter-regional vehicular movement, goods movement, active transportation to support agricultural, institutional, industrial and open space uses. Features include goods movement and farming supportive design measures, paved shoulders or multi-use paths, and higher road speeds. Rural collector roads are typically located outside the villages of King City, Nobleton, Lloydtown or Schomberg.

4 Urban Local Roads

Local roads mostly serve local traffic. Trucks are permitted for local deliveries only and there are usually no bus routes. Cyclists share road space with vehicles and pedestrian facilities can vary depending on the environment. Given the low traffic volumes on these roads, cycle lanes are not necessary. Private accesses are permitted and intersections are typically controlled by stop or yield signs. This type of roads would be a subclass of York Region's Rural Hamlet road classification, together with Collector Roads.

5 Rural Local Roads

Rural local roads serve similar functions to urban local roads; however, they are located outside the villages of King City, Nobleton, Lloydtown or Schomberg.

Table 4-5: Proposed Township Road Classification Criteria, Rural Roads

FACTOR	RURAL LOCALS	RURAL COLLECTORS	RURAL ARTERIALS
Traffic service function	Traffic movement secondary consideration	Traffic movement and land access of equal importance	Traffic movement primary consideration
Land service	Land access consideration	Traffic movement and land access of equal importance	Land access secondary consideration
Desirable connections	Locals, collectors	Locals, collectors, arterials	Collectors, arterials freeways
Number of vehicle lanes [a]	Two	Two	Two to four
Traffic daily traffic volumes in both directions (veh/day)	Carry low volumes of traffic (<1,000)	Carry medium volumes of traffic (1,000 - 5,000)	5,000 - 12,000 AADT
Flow characteristics	Interrupted flow	Interrupted flow	Uninterrupted flow except at signals
Design speed (km/h)	50 - 110	60 - 110	80 - 130
Average running speed (km/h) (free flow conditions)	50 - 90	50 - 90	60 - 100
Vehicle type	Predominantly passenger cars, light to medium trucks and occasional heavy trucks	All types, up to 30% trucks in the 3 to 5 tonne range	All types, up to 20% trucks

Source: Table 2.6.4 - Characteristics of Rural Roads, Geometric Design Guide for Canadian Roads, Transportation Association of Canada (TAC), 2017.
a. The number of lanes include HOV or bus lanes and a centre two-way left-turn lane (TWLTL), and excludes bike lanes

Table 4-6: Proposed Township Road Classification Criteria, Urban Roads

FACTOR	LOCALS		COLLECTORS	
	RESIDENTIAL	INDUSTRIAL / COMMERCIAL	RESIDENTIAL	INDUSTRIAL / COMMERCIAL
Traffic service function	Traffic movement secondary consideration		Traffic movement and land access of equal importance	
Land service / access	Land access primary function		Traffic movement and land access of equal importance	
Desirable connections	Locals, collectors		Locals, collectors, arterials	
Typical daily traffic volume in two directions (veh/day)	Carry low volumes of traffic		Carry medium volumes of traffic	
	< 1,000	< 3,000	1,000 - 8,000	3,000 - 12,000
Number of vehicle lanes [a]	One (one-way streets) or two		Two to five	
Flow characteristics	Interrupted flow		Interrupted flow	
Posted speed	40 or less		40-50	
Transit service	Generally, not provided		Permitted	
Accommodation of cyclists	No restrictions or special facilities		Special facilities considered	
Accommodation of pedestrians	Sidewalks normally on one or both sides	Sidewalks provided where required	Sidewalks normally on both sides	Sidewalks provided where required
Parking (typically)	No restrictions or restrictions one side only		Few restrictions other than peak hours	
Min. intersection spacing (m)	60		60	

Source: Table 2.6.5 - Characteristics of Urban Roads, Geometric Design Guide for Canadian Roads, Transportation Association of Canada (TAC), 2017.
a. The number of lanes include HOV or bus lanes and a centre two-way left-turn lane (TWLTL), and excludes bike lanes.

The existing and future AADT of the Township roadways, as well as the adjacent land uses were reviewed to determine the proposed road classification. The future 2031 AADT volumes on the Township's roads were forecasted by applying a compound annual growth rate of 2.1%, which was derived from the Township's population growth forecast, to the existing AADT volumes. The roadway hierarchy was developed by examining how roadways currently operate within the Township's road network.

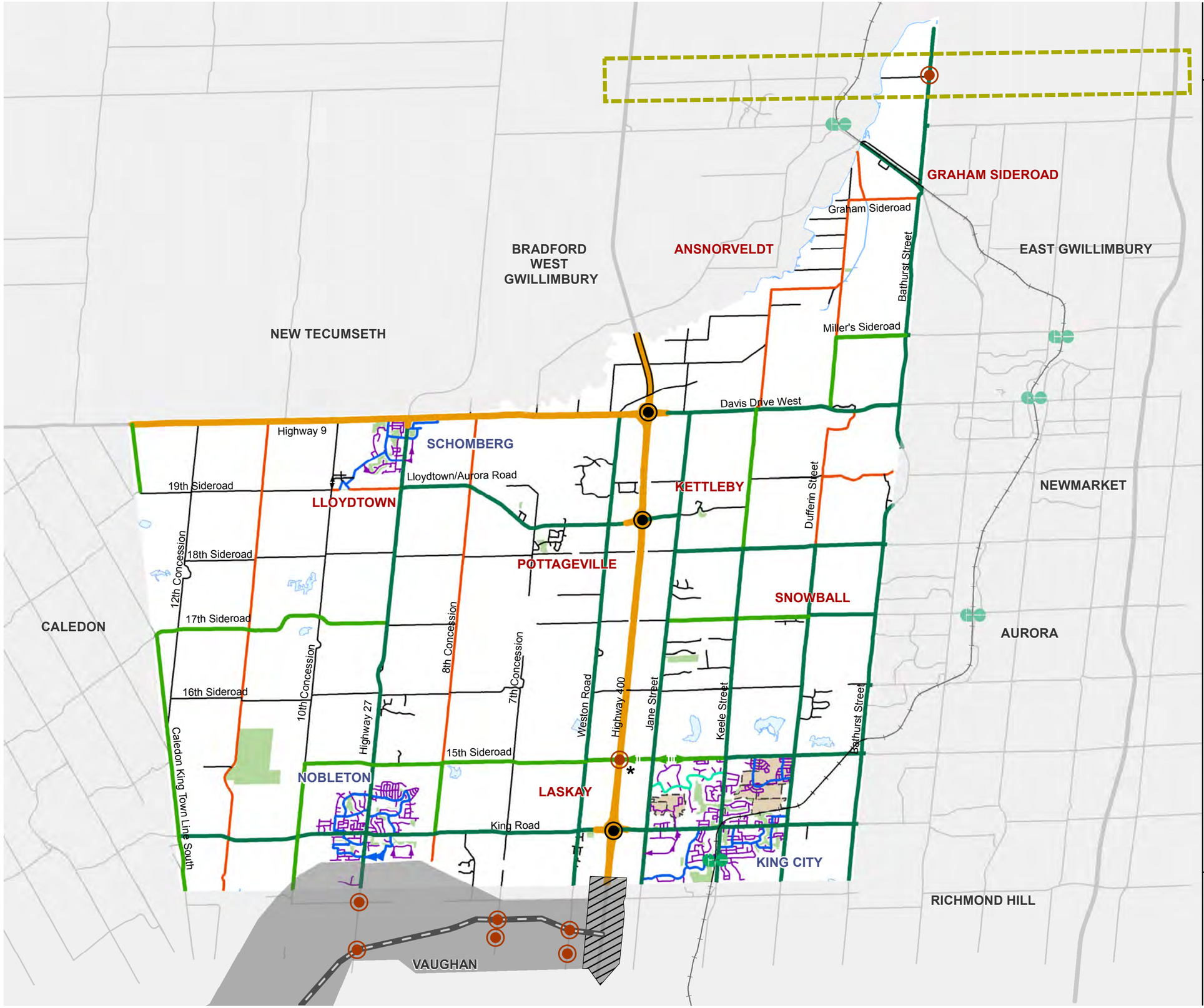
Figure 4-15 to **Figure 4-18** illustrate the proposed classification of the Township's road network. This plan formalizes how existing roads are currently used and is not intended to change the current physical design or increase traffic volumes on these roads.

It is also important for the Township to note that the change of a roadway's classification will not require any immediate changes. This should be adequately articulated to the residents living adjacent to these roadways.

Details of the rationale for the proposed classification of the Township's roads are provided in **Appendix C**.

FIGURE 4-15
PROPOSED ROAD CLASSIFICATION AND JURISDICTION

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



- Waterbody
- Park / Open Space
- Current Proposed Development Application
- Bradford By-pass Planning Study Area
- Potential Freeway-to-Freeway Interchange
- GTA West Corridor Technically Preferred Route
- GTA West Corridor Planning Study Area
- Existing Interchange Location
- Potential Interchange Location

Road Classification

- Provincial Highway / Freeway (MTO)
- Arterial Road (York Region)
- Arterial Road (Township)
- Arterial Road (Township Linkage)
- Rural Collector
- Rural Local (Approved or Constructed)
- Rural Local (Linkage)
- Signature Collector
- Urban Collector (Approved or Constructed)
- Urban Collector (Linkage)
- Urban Local (Approved or Constructed)
- Urban Local (Linkage)

Other Transportation Network Features

- GO Train Station
- GO Train Rail Line

Note:

* Special Study Area: the proposed alignment and location of specific projects remain conceptual at this time. These concepts remain subject to review and confirmation through the Planning Act, the applicable environmental assessments process established under the Environmental Assessments Act and preliminary and detailed design.

N

0 3 6 km

KING

wsp

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WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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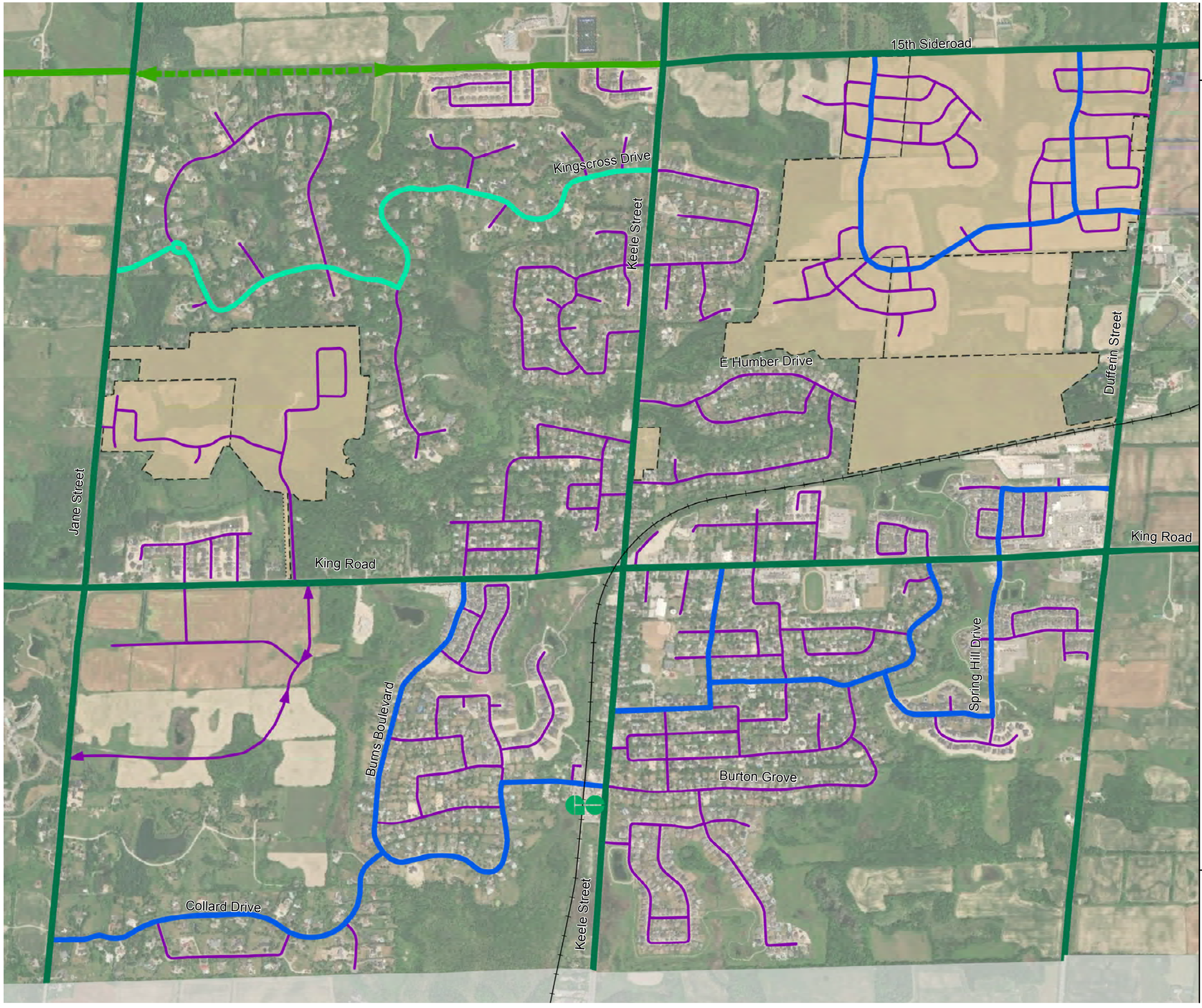
FIGURE 4-16
KING CITY PROPOSED ROAD CLASSIFICATION AND JURISDICTION

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



Current Proposed Development Application

Road Classification

- Provincial Highway / Freeway (MTO)
- Arterial Road (York Region)
- Arterial Road (Township)
- Arterial Road (Township Linkage)
- Rural Collector
- Rural Local (Approved or Constructed)
- Rural Local (Linkage)
- Signature Collector
- Urban Collector (Approved or Constructed)
- Urban Collector (Linkage)
- Urban Local (Approved or Constructed)
- Urban Local (Linkage)

Transit Network

- GO Train Station
- GO Train Rail Line

N

0 0.5 1 km

KING

wsp

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Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King, ESRI
Projection: UTM NAD83 Zone 17

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FIGURE 4-17
NOBLETON PROPOSED ROAD CLASSIFICATION AND JURISDICTION

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

Current Proposed Development Application

Road Network

- Provincial Highway / Freeway (MTO)
- Arterial Road (York Region)
- Arterial Road (Township)
- Arterial Road (Township Linkage)
- Rural Collector
- Rural Local (Approved or Constructed)
- Rural Local (Linkage)
- Signature Collector
- Urban Collector (Approved or Constructed)
- Urban Collector (Linkage)
- Urban Local (Approved or Constructed)
- Urban Local (Linkage)

Transit Network

- GO Train Station
- GO Train Rail Line

N

0 0.5 1 km

KING

wsp

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Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King, ESRI
Projection: UTM NAD83 Zone 17

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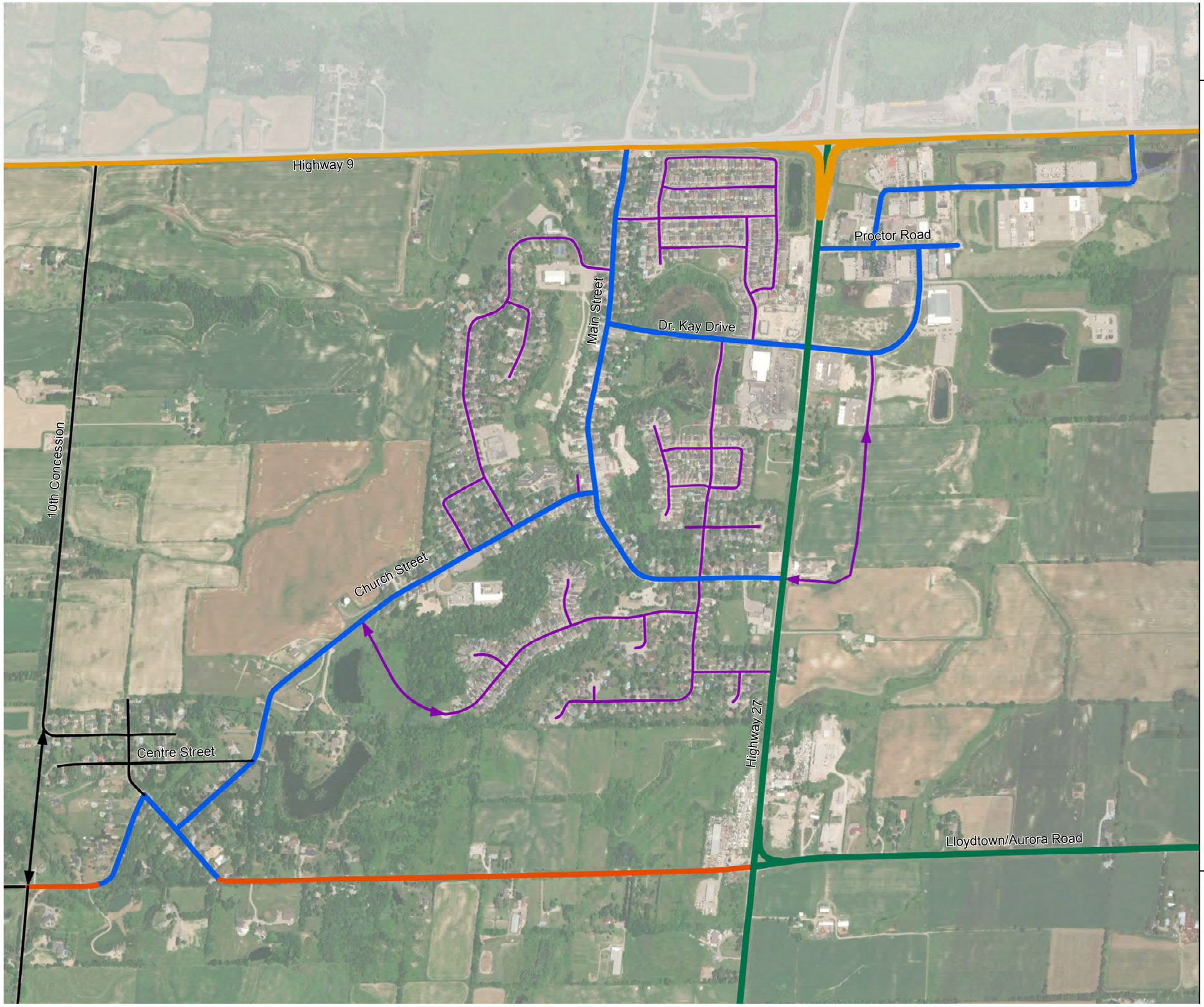
FIGURE 4-18
SCHOMBERG AND LLOYDTOWN PROPOSED ROAD CLASSIFICATION AND JURISDICTION

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



Current Proposed Development Application

Road Network

- Provincial Highway / Freeway (MTO)
- Arterial Road (York Region)
- Arterial Road (Township)
- Arterial Road (Township Linkage)
- Rural Collector
- Rural Local (Approved or Constructed)
- Rural Local (Linkage)
- Signature Collector
- Urban Collector (Approved or Constructed)
- Urban Collector (Linkage)
- Urban Local (Approved or Constructed)
- Urban Local (Linkage)

Transit Network

- GO Train Station
- GO Train Rail Line

N

0 0.35 0.7 km

KING

WSP

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King, ESRI
Projection: UTM NAD83 Zone 17

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4.5.2 PROPOSED NUMBER OF VEHICLE LANES

As discussed in **Section 4.2**, all planned roadway widenings within the Township by horizon year 2031 are on Regional roads and Provincial highways. A summary of these planned road widenings and the changes in number of vehicles lanes (widenings and new roads) in the Township's road network are provided in **Figure 4-19** to **Figure 4-22**. The ultimate total number of vehicle lanes are provided in **Figure 4-23** to **Figure 4-26**.

4.5.2.1 TOWNSHIP ROADS

The proposed road capacity improvements to the Township roads include:

1. Proposed new roads (collector roads, local roads) to improve network connectivity and support the new developments within the three villages of King City, Nobleton, and Schomberg. These new roads also include:
   - Those already proposed by the current development applications in the northeast of King City and in Nobleton, in the southeast of Russel Snider Drive and Sheardown Drive;
   - Extension of 10th Concession to 19th Sideroad in Lloydtown; and
   - Other new linkages.

   Note that the proposed new roads are subject to change through the development process.
2. Upgrading gravel to asphalt: It is important to note that the road surface upgrade of gravel to asphalt would add additional road capacities to the Township network, which are not presented in all the road network maps.

   The current gravel roads are proposed to be upgraded to asphalt pavement roads. The roadway surface upgrade would make the road accessible and friendly to traffic, increase roadway capacity significantly, and provide alternative travel routes for traffic. For example, the current gravel road on 10th Concession from King Road to 15th Sideroad is proposed to be paved, which would add additional capacity at the screenline and provide an alternative road for some traffic diverting off Highway 27.

In addition, the intersection improvement on 15 Sideroad at Highway 27 is proposed by eliminating the offsets on the eastbound and westbound approaches on 15 Sideroad.

4.5.2.2 REGIONAL ROADS

It is acknowledged that Regional roads are in the jurisdiction of York Region and their improvements had been addressed in the Region's TMP (2016). The widening of 15th Sideroad from two to four lanes between Highway 400 and Bathurst Street was identified for 2032-2041. As indicated in the 2031 future screenline assessment in **Section 4.3**, there would be capacity deficiencies at the screenline by 2031, which are due to the forecasted 2031 future traffic volumes and the major developments in King City. The Township and the Region should consider advancing the timeline of this recommended road widening project prior to 2031. In addition, as the road section is within an environmentally sensitive area, a further study and analysis is required.

FIGURE 4-19
2031 FUTURE NUMBER OF VEHICLE LANES

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

Bradford Bypass:
Potential 4-lane Provincial Highway connecting Highway 400 in Bradford West Gwillimbury and Highway 404 in the Town of East Gwillimbury by 2027-2031. (Source: York Region 2016 TMP)

Recommended widening of Highway 9 from Highway 27 to east of West Canal Bank Road from 2 to 4 lanes by 2027-2039. (Source: York Region 2016 TMP)

Proposed jog elimination on 15th Sideroad at Highway 27 intersection.

Recommended widening of Highway 27 from Major Mackenzie Drive to King Road from 2 to 4 lanes by 2022-2026. (Source: York Region 2016 TMP)

GTA West Corridor:
Potential new east-west highway south of the Township by 2027-2031. (Source: York Region 2016 TMP)

Recommended interchange at Highway 400 and 15th Sideroad, and widening of 15th Sideroad from 2 to 4 lanes between Highway 400 and Bathurst Street by 2032-2041. (Source: York Region 2016 TMP)

Due to forecasted 2031 future traffic volumes and the new developments in King City, the Township and the Region should consider widening the road by 2031.

Planned Highway 400 lane expansion (addition of HOV lanes) from Major Mackenzie Drive to King Road by 2020 (Source: MTO 2019 Southern Highways Program), and further expansion to Canal Road at a later date.

GRAHAM SIDEROAD
Graham Sideroad
BRADFORD WEST GWILLIMBURY
ANSNORVELDT
EAST GWILLIMBURY
NEW TECUMSETH
Bathurst Street
Miller's Sideroad
Davis Drive West
Highway 9
SCHOMBERG
19th Sideroad
Lloydtown/Aurora Road
LLOYDTOWN
KETTLEBY
Dufferin Street
NEWMARKET
18th Sideroad
POTTAGEVILLE
SNOWBALL
CALEDON
17th Sideroad
AURORA
12th Concession
10th Concession
8th Concession
7th Concession
Weston Road
Highway 400
Jane Street
Keele Street
Bathurst Street
16th Sideroad
Highway 27
15th Sideroad
NOBLETON
LASKAY
King Road
KING CITY
Caledon King Town Line South
RICHMOND HILL
VAUGHAN

Waterbody
Park / Open Space
Current Proposed Development Application
Bradford By-pass Planning Study Area
Potential Freeway-to-Freeway Interchange
GTA West Corridor Technically Preferred Route
GTA West Corridor Planning Study Area
Existing Interchange Location
Potential Interchange Location

Proposed Township Road Improvements
New 2-Lane Road (Approved)
New 2-Lane Road (Linkage)
New 4-Lane Road (Linkage)

Proposed Improvements by Others
Existing 2 Lanes + 2 New Lanes
Existing 6 Lanes + 2 New HOV Lanes[1]

Other Transportation Network Features
Road with No Change
GO Train Station
GO Train Rail Line

Note:
* Special Study Area: the proposed alignment and location of specific projects remain conceptual at this time. These concepts remain subject to review and confirmation through the Planning Act, the applicable environmental assessments process established under the Environmental Assessments Act and preliminary and detailed design.
1. HOV: high-occupancy vehicle

N
0 3 6 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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FIGURE 4-20
KING CITY 2031 FUTURE NUMBER OF VEHICLE LANES

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

Current Proposed Development Application

Proposed Township Road Improvements

- New 2-Lane Road (Approved)
- New 2-Lane Road (Linkage)
- New 4-Lane Road (Linkage)

Proposed Improvements by Others

- Existing 2 Lanes + 2 New Lanes
- Existing 6 Lanes + 2 New HOV Lanes[1]

Other Transportation Network Features

- Road with No Change
- GO Train Station
- GO Train Rail Line

Note:
1. HOV: high-occupancy vehicle

N

0 0.5 1 km

KING

wsp

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WSP

Sources:
Base Data: MNRF, Region of York & Township of King, ESRI
Projection: UTM NAD83 Zone 17

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FIGURE 4-21
NOBLETON 2031 FUTURE NUMBER OF VEHICLE LANES

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

Current Proposed Development Application

Proposed Town Road Improvements

- New 2-Lane Road (Approved)
- New 2-Lane Road (Linkage)
- New 4-Lane Road (Linkage)

Proposed Improvements by Others

- Existing 2 Lanes + 2 New Lanes
- Existing 6 Lanes + 2 New HOV Lanes[1]

Other Transportation Network Features

- Road with No Change
- GO Train Station
- GO Train Rail Line

Note:
1. HOV: high-occupancy vehicle

N

0 0.5 1 km

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Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King, ESRI
Projection: UTM NAD83 Zone 17

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FIGURE 4-22
SCHOMBERG AND LLOYDTOWN 2031 FUTURE NUMBER OF VEHICLE LANES

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

Current Proposed Development Application

Proposed Town Road Improvements

New 2-Lane Road (Approved)

New 2-Lane Road (Linkage)

New 4-Lane Road (Linkage)

Proposed Improvements by Others

Existing 2 Lanes + 2 New Lanes

Existing 6 Lanes + 2 New HOV Lanes[1]

Other Transportation Network Features

Road with No Change

GO Train Station

GO Train Rail Line

Note:
1. HOV: high-occupancy vehicle

N

0 0.325 0.65 km

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King, ESRI
Projection: UTM NAD83 Zone 17

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FIGURE 4-23
2031 ULTIMATE FUTURE NUMBER OF VEHICLE LANES

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

Bradford Bypass:
Potential 4-lane Provincial Highway connecting Highway 400 in Bradford West Gwillimbury and Highway 404 in the Town of East Gwillimbury by 2027-2031. (Source: York Region 2016 TMP)

Planned widening of Highway 9 from Highway 27 to east of West Canal Bank Road from 2 to 4 lanes by 2027-2039. (Source: York Region 2016 TMP)

Proposed jog elimination on 15th Sideroad at Highway 27 intersection.

Planned widening of Highway 27 from Major Mackenzie Drive to King Road from 2 to 4 lanes by 2022-2026. (Source: York Region 2016 TMP)

GTA West Corridor:
Potential new east-west highway south of the Township by 2027-2031. (Source: York Region 2016 TMP)

Planned Highway 400 lane expansion (addition of HOV lanes) from Major Mackenzie Drive to King Road by 2020 (Source: MTO 2019 Southern Highways Program), and further expansion to Canal Road at a later date.

Planned interchange at Highway 400 and 15th Sideroad, and widening of 15th Sideroad from 2 to 4 lanes between Highway 400 and Bathurst Street by 2032-2041. (Source: York Region 2016 TMP)

Due to forecasted 2031 future traffic volumes and the new developments in King City, the Township and the Region should consider widening the road by 2031.

GRAHAM SIDEROAD
Graham Sideroad
Bathurst Street
BRADFORD WEST GWILLIMBURY
ANSNORVELDT
EAST GWILLIMBURY
NEW TECUMSETH
Miller's Sideroad
Davis Drive West
Highway 9
SCHOMBERG
19th Sideroad
Lloydtown/Aurora Road
LLOYDTOWN
KETTLEBY
Dufferin Street
NEWMARKET
18th Sideroad
12th Concession
POTTAGEVILLE
SNOWBALL
CALEDON
17th Sideroad
AURORA
8th Concession
7th Concession
10th Concession
16th Sideroad
Weston Road
Highway 400
Jane Street
Keele Street
Bathurst Street
Highway 27
15th Sideroad
NOBLETON
LASKAY
Caledon King Town Line South
King Road
KING CITY
RICHMOND HILL
VAUGHAN

Legend

- Waterbody
- Park / Open Space
- Current Proposed Development Application
- Bradford By-pass Planning Study Area
- Potential Freeway-to-Freeway Interchange
- GTA West Corridor Technically Preferred Route
- GTA West Corridor Planning Study Area
- Existing Interchange Location
- Potential Interchange Location

Vehicle Lanes

- 1 Lane
- 2 Lanes (Approved or Constructed)
- 2 Lanes (Linkage)
- 2 Lanes + 1 TWLTL[1]
- 3 Lanes[2]
- 3 Lanes[2] + 1 TWLTL[1]
- 4 Lanes
- 4 Lanes (Linkage)
- 4 Lanes + 1 TWLTL[1]
- 6 Lanes
- 6 Lanes + 2 HOV Lanes[3]

Other Transportation Network Features

- GO Train Station
- GO Train Rail Line

Note:
* Special Study Area: the proposed alignment and location of specific projects remain conceptual at this time. These concepts remain subject to review and confirmation through the Planning Act, the applicable environmental assessments process established under the Environmental Assessments Act and preliminary and detailed design.

1. TWLTL: two-way left turn lane
2. 3 lanes consists of two lanes in one direction and one lane in another direction
3. HOV: high-occupancy vehicle

N

0 3 6 km

KING
wsp
DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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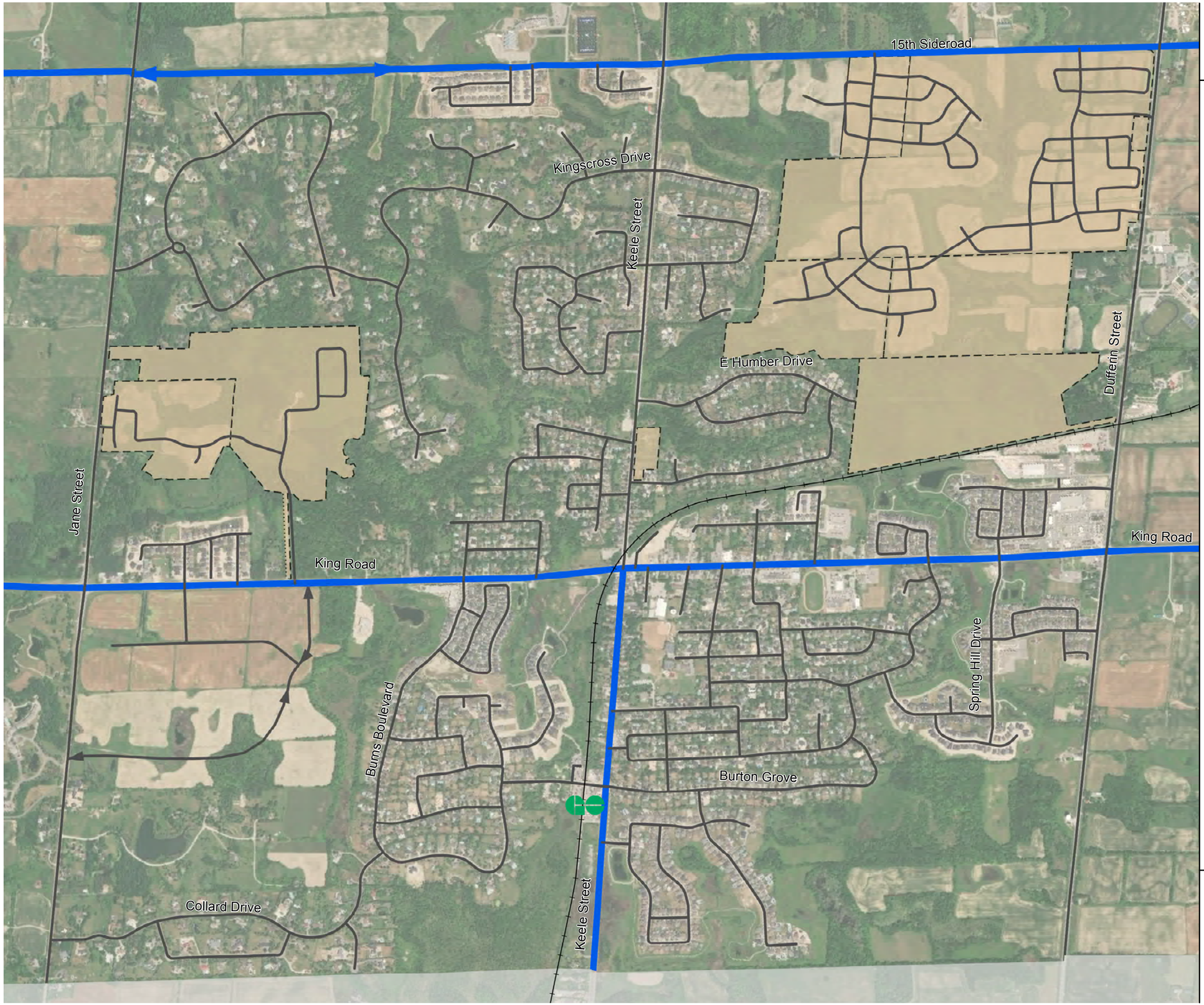
FIGURE 4-24
KING CITY 2031 ULTIMATE FUTURE NUMBER OF VEHICLE LANES



TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

Current Proposed Development Application

Vehicle Lanes

- 1 Lane
- 2 Lanes (Approved or Constructed)
- 2 Lanes (Linkage)
- 2 Lanes + 1 TWLTL[1]
- 3 Lanes[2]
- 3 Lanes[2] + 1 TWLTL[1]
- 4 Lanes
- 4 Lanes (Linkage)
- 4 Lanes + 1 TWLTL[1]
- 6 Lanes
- 6 Lanes + 2 HOV Lanes[3]

Other Transportation Network Features

- GO Train Station
- GO Train Rail Line

Note:
1. TWLTL: two-way left turn lane
2. 3 lanes consists of two lanes in one direction and one lane in another direction
3. HOV: high-occupancy vehicle

N

0 0.5 1 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King, ESRI
Projection: UTM NAD83 Zone 17

March 2020

FIGURE 4-25
NOBLETON 2031 FUTURE ULTIMATE NUMBER OF VEHICLE LANES

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

Current Proposed Development Application

Vehicle Lanes

- 1 Lane
- 2 Lanes (Approved or Constructed)
- 2 Lanes (Linkage)
- 2 Lanes + 1 TWLTL[1]
- 3 Lanes[2]
- 3 Lanes[2] + 1 TWLTL[1]
- 4 Lanes
- 4 Lanes (Linkage)
- 4 Lanes + 1 TWLTL[1]
- 6 Lanes
- 6 Lanes + 2 HOV Lanes[3]

Other Transportation Network Features

- GO Train Station
- GO Train Rail Line

Note:
1. TWLTL: two-way left turn lane
2. 3 lanes consists of two lanes in one direction and one lane in another direction
3. HOV: high-occupancy vehicle

N

0 0.5 1 km

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Sources:
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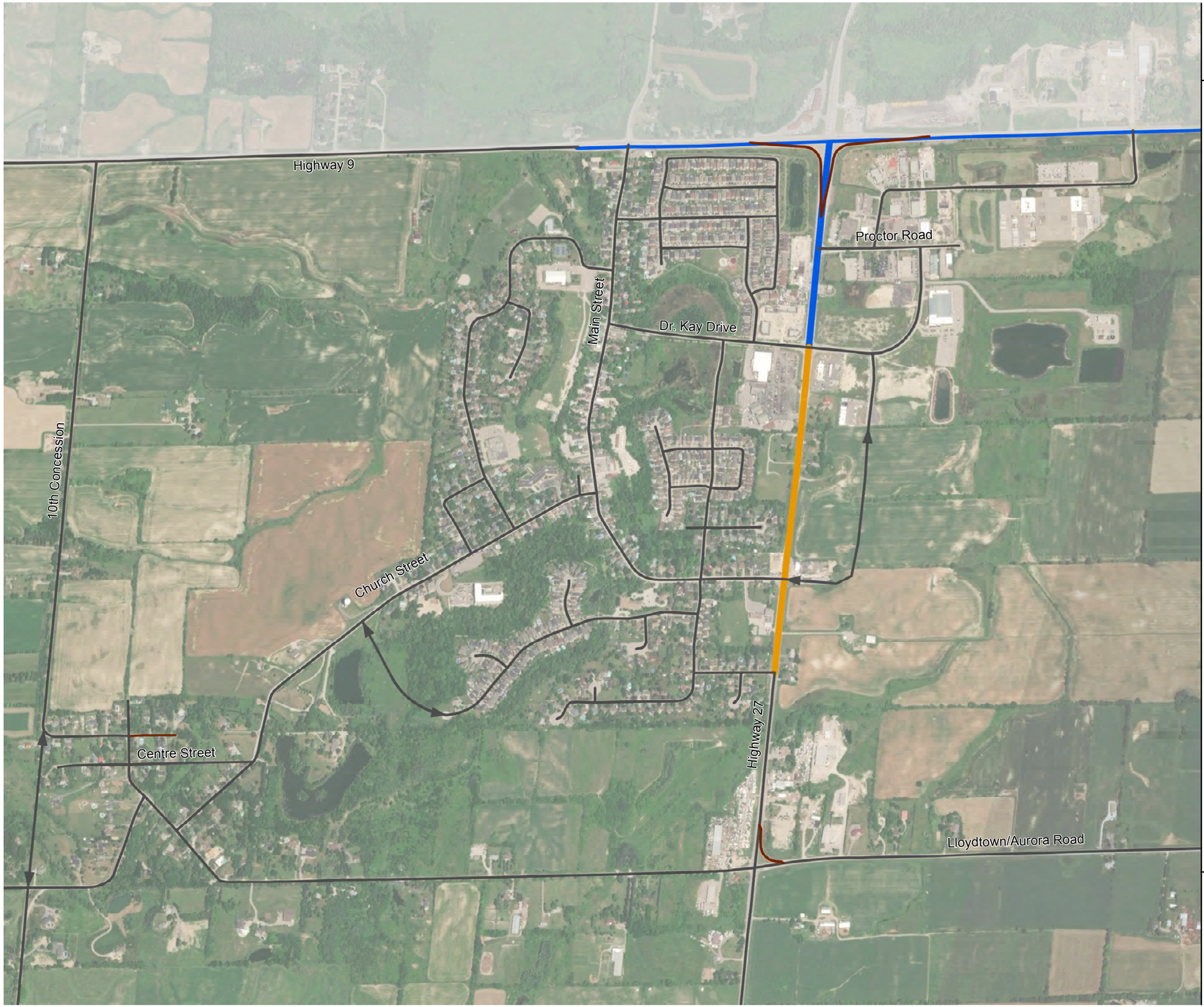
FIGURE 4-26
SCHOMBERG AND LLOYDTOWN 2031 FUTURE ULTIMATE NUMBER OF VEHICLE LANES



TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

Current Proposed Development Application

Vehicle Lanes

- 1 Lane
- 2 Lanes (Approved or Constructed)
- 2 Lanes (Linkage)
- 2 Lanes + 1 TWLTL[1]
- 3 Lanes[2]
- 3 Lanes[2] + 1 TWLTL[1]
- 4 Lanes
- 4 Lanes (Linkage)
- 4 Lanes + 1 TWLTL[1]
- 6 Lanes
- 6 Lanes + 2 HOV Lanes[3]

Other Transportation Network Features

- GO Train Station
- GO Train Rail Line

Note:
1. TWLTL: two-way left turn lane
2. 3 lanes consists of two lanes in one direction and one lane in another direction
3. HOV: high-occupancy vehicle

N

0 0.35 0.7 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King, ESRI
Projection: UTM NAD83 Zone 17

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4.5.3 PROPOSED RIGHT-OF-WAY

The required road right-of-way (ROW) should consider the needs of future roadway improvements and ensure that sufficient road ROW is protected to accommodate roadway components as per the Township's Design Standard.

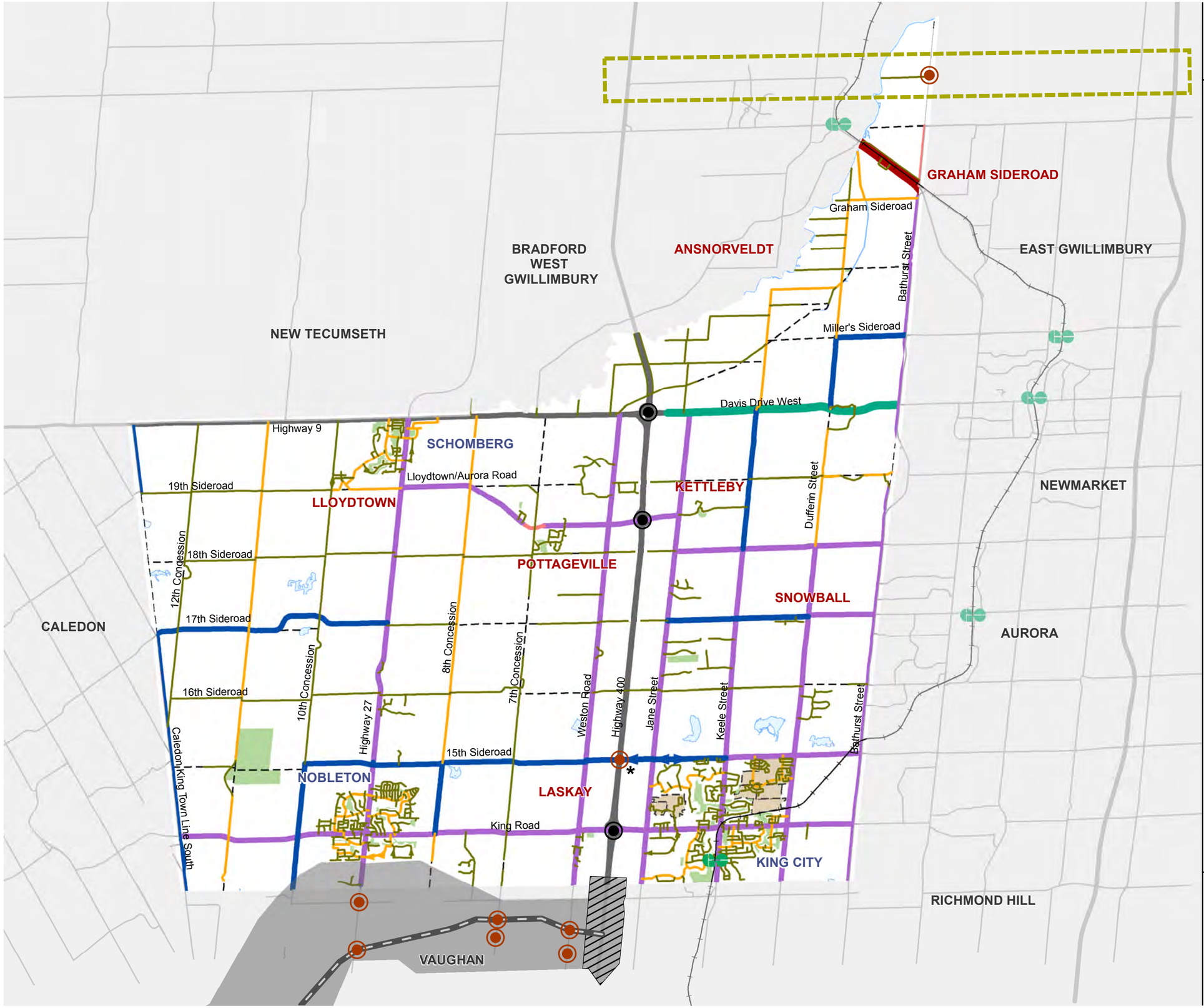
The proposed ROW is based on the proposed road classification and the Township's standard cross-sections defined in the Township's Design Criteria and Standard Detail Drawings Manual (2019). The Design Manual requires collector roads to have a ROW of 26 metres, and local roads to have a ROW of 20 metres. The proposed ROW for the roadways within the Township is illustrated in **Figure 4-27**.

The ROW for Regional roads shown in **Figure 4-27** are based on the York Region's Official Plan (2010). Township roads with potential to be uploaded to the Region are protected for a ROW of 36 metres to be consistent with the current minimum ROW standard for a Regional road.

Note that the constrained ROW due to abutting properties and other constraints were not assessed in this TMP. Furthermore, the Township may require additional lands at intersections to provide exclusive turn lanes, bus queue jump lanes, transit stop amenities, and other special treatments during the construction of bridges, overpasses and underpasses, and possible parking bays. These would be determined through development applications, individual EA studies, if required, or during detailed design of the roadway.

FIGURE 4-27
2031 PROPOSED NETWORK RIGHT-OF-WAY

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



Waterbody

Park / Open Space

Current Proposed Development Application

Bradford By-pass Planning Study Area

Potential Freeway-to-Freeway Interchange

GTA West Corridor Technically Preferred Route

GTA West Corridor Planning Study Area

Existing Interchange Location

Potential Interchange Location

Regional Roads Rights-of-Way

- Up to 30 metres
- Up to 36 metres
- Up to 43 metres
- Up to 45 metres

Township Roads Rights-of-Way

- 20 metres (Approved or Constructed)
- 20 metres (Linkage)
- 26 metres (Approved or Constructed)
- 26 metres (Linkage)
- Up to 36 metres (Protected for Upload to Region)
- Up to 36 metres (Linkage)

Other Transportation Network Features

- Provincial Highway / Freeway
- Unopened Road Allowance
- GO Train Station
- GO Train Rail Line

Note:

* Special Study Area: the proposed alignment and location of specific projects remain conceptual at this time. These concepts remain subjective to review and confirmation through the Planning Act, the applicable environmental assessments process established under the Environmental Assessments Act and preliminary and detailed design.

The ROWs are based on Township's standard cross-section widths. Additional ROW may be needed at intersections, grade separated crossings or in consideration the existing ROW are actually greater. ROW will be protected as part of the development approval process, further refined during the Environmental Assessment and detail design stages.

N

0 3 6 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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4.5.4 PROPOSED GOODS MOVEMENT NETWORK

The Township is close to several major truck traffic generating activities such as quarries, industries, warehousing, farms, and intermodal terminals. Truck traffic uses any of the Regional roads, Highway 9 and Highway 400 to transport goods to key industrial/construction areas in neighbouring municipalities. The Township experiences heavy truck volumes on Regional roads within its boundaries as well as many of its roads. King Road is a major link for traffic from outside of the Township to access Highway 400, resulting in significant truck traffic in Nobleton and King City.

The York Region TMP (2016) recommended a hierarchy of truck routes within the Township as shown in **Figure 4-28**. It identified Highway 400 and rail lines as Tier 1 goods movement corridors; major arterial roads, such as Highway 9 / Davis Drive West, Highway 27, and King Road, as Tier 2 primary goods movement corridors. King Road was classified as an interim primary goods movement corridor which is to be replaced by the future 15th Sideroad once it connects to Highway 400. All other Regional roads were classified as Tier 3 secondary goods movement corridors.

All roads without special restrictions are allowed for heavy vehicles, regardless of whether it is a planned goods movement corridor or not. Roads identified as part of the goods movement corridors are expected to experience higher volumes of truck traffic and should be designed as truck-friendly.

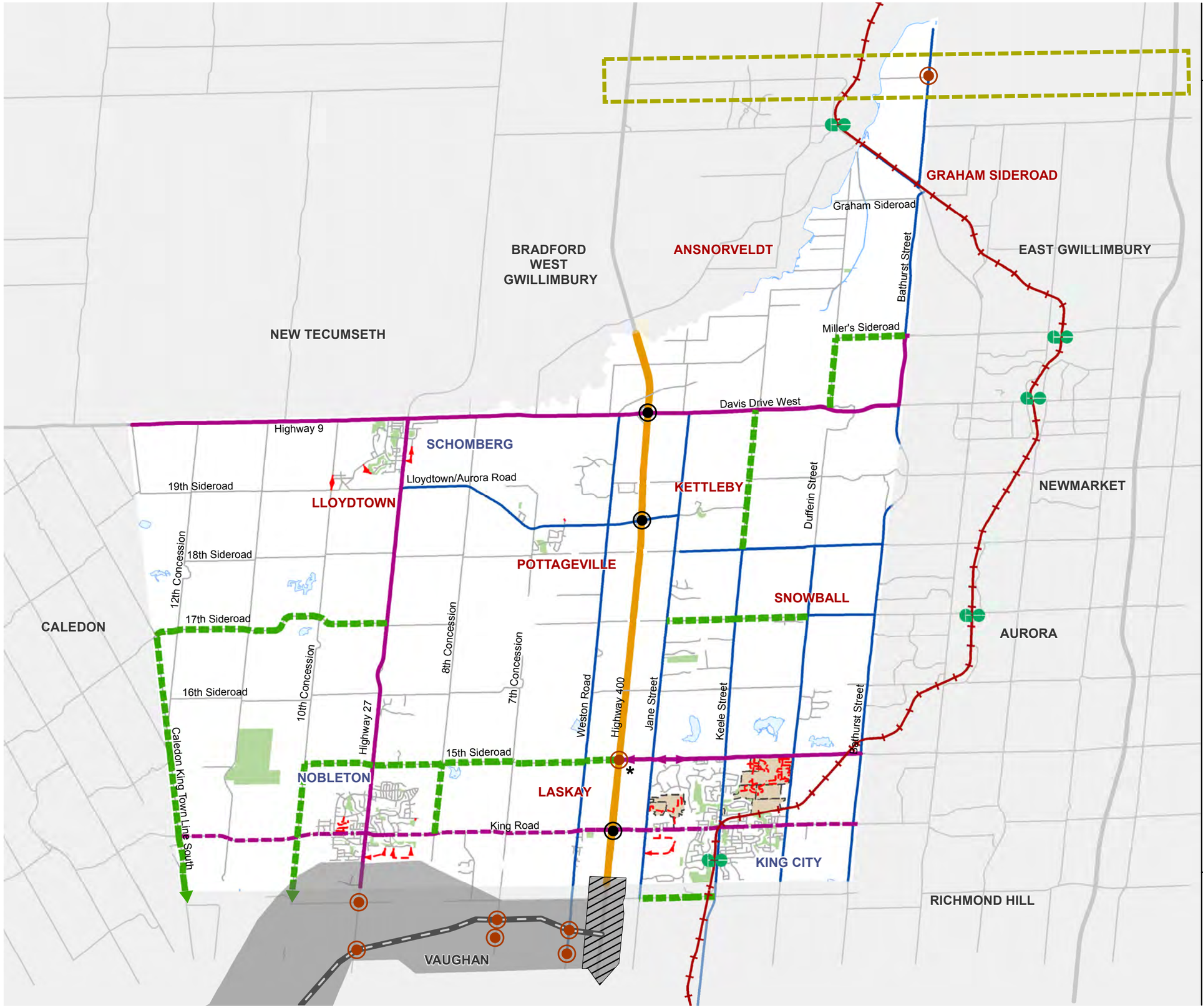
To limit the impacts of truck traffic on the Township's communities and ensure proper connections with the Region recommended network, York Region's recommended goods movement network within the Township was reviewed to consider potential improvements to promote truck traffic on routes that offer direct connections to the provincial and inter-regional road networks. The following additional goods movement corridors are proposed, as shown in **Figure 4-28**.

- **Miller Sideroad and Dufferin Street (Miller's Sideroad to Davis Drive West):** The roadways experience relatively high volumes of traffic including heavy vehicles as many vehicles bypass portions of Davis Drive West to access Highway 400.
- **Keele Street (Davis Drive West to 18th Sideroad), 17th Sideroad (Jane Street to Dufferin Street), Caledon King Town Line South (17th Sideroad to Township south limits):** The roadways essentially operate as arterial roads. As discussed in **Section 4.5.5**, they have potential to be uploaded as Regional roads.
- **17th Sideroad (Caledon King Town Line South to Highway 27):** The goods movement network on the mid-west section of the Township lacks east-west connections.
- **"Nobleton Loop" - 15th Sideroad (Highway 400 to 10th Concession), 10th Concession (15th Sideroad to King Road), 8th Concession (15th Sideroad to King Road), 10th Concession (King Road to King Vaughan Road):** This loop is proposed to reduce truck volumes on King Road that pass through Nobleton. The Township of King and the City of Vaughan could consider extending the route along 10th Concession to King Vaughan Road to improve the goods movement network connectivity and help divert some of the heavy vehicle traffic on King Road to King Vaughan Road via the 10th Concession and to the GTA West Corridor. Any required intersection improvements to accommodate truck traffic, such as possible improvements to the intersection of 8th Concession and King Road, should be reviewed at the same time.
- **"King City Bypass" - King Vaughan Road (Jane Street to Keele Street):** This bypass is proposed to reduce trucks passing through King City via the intersection of Keele Street and King Road to enter / exit Highway 400. This intersection is the centre of the King City community and currently experiences high levels of congestion in the peak hours. Providing a bypass would help in community building and would enable different uses of the right-of-way in this historic downtown centre. The Township of King and the City of Vaughan could consider diverting truck traffic heading north on Keele Street destined for Highway 400 to use King Vaughan Road to access Jane Street and King Road to connect to the highway.

Similarly, truck traffic heading south to connect to Highway 400 can use 17th Sideroad to connect to Jane Street and then King Road to access the highway. This diversion will alleviate truck traffic at the King Road and Keele Street intersection. On-street parking, turn lanes and other aspects of the road network in the King/Keele intersection area can be revisited if through trucks are re-routed. Signage and education would need to be enacted to inform the trucking industry of the desired bypass for trucks.

FIGURE 4-28
PROPOSED GOODS MOVEMENT NETWORK

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



- Waterbody
- Park / Open Space
- Current Proposed Development Application
- Bradford By-pass Planning Study Area
- Potential Freeway-to-Freeway Interchange
- GTA West Corridor Technically Preferred Route
- GTA West Corridor Planning Study Area
- Existing Interchange Location
- Potential Interchange Location

York Region's Planned Goods Movement Network

Tier 1

- Highway Goods Movement Corridor
- Rail Line

Tier 2

- Primary Arterial Goods Movement Corridor
- Interim Primary Goods Movement Corridor
- Primary Arterial Goods Movement Corridor (Linkage)

Tier 3

- Secondary Goods Movement Corridor

TMP Proposed Corridor

- Proposed New Goods Movement Corridors (Primary or Secondary)

Other Transportation Network Features

- New 2-Lane Road (Approved)
- New 2-Lane Road (Linkage)
- GO Train Station

Note:

* Special Study Area: the proposed alignment and location of specific projects remain conceptual at this time. These concepts remain subjective to review and confirmation through the Planning Act, the applicable environmental assessments process established under the Environmental Assessments Act and preliminary and detailed design.

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WSP

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4.5.5 FUTURE ROADWAYS TO UPLOAD TO REGION

As the surrounding areas and the Township of King continue to grow, more and more trips of regional and inter-regional nature use the Township roads. As part of the 2020 TMP, Township roads that are currently heavily travelled by regional and inter-regional traffic have been identified as potential roads to be uploaded to York Region.

The Regional Road assumption policy, adopted on June 26, 2014, outlines the requirements for adopting new Regional roads. A summary of the policy is provided in **Table 4-7**.

Table 4-7: Considerations for the Interjurisdictional Transfer of a Road

1.1 REGIONALLY SIGNIFICANT TRANSPORTATION NETWORK CRITERIA

To form part of the Regional Road system, the road must support the Region's transportation plans and objectives as defined by (but not limited to) the Transportation Master Plan, Regional Official Plan and Vision 2051.
Additionally, to form a part of the Regional Road system, the road must meet one of the following functions:

a. Perform a cross-boundary, inter-regional or inter-municipal function;
b. Provide a logical connection in the Regional Road network and will fill a gap where one currently exists;
c. Provide a direct link to the Provincial highway system; or
d. Support an existing or planned rapid transit route or connection to a major transit hub.

1.2 EXISTING CORRIDOR AND ENVIRONMENTAL CONDITIONS AND ISSUES

It is necessary to assess the existing conditions of the road and any issues related to the road, including:

a. The environmental conditions of the road (such as a Phase 1 environmental site assessment);
b. Whether there an any issues with drainage, traffic noise, or access;
c. The condition of the pavement, and streetscape and trees, and any structures, culverts, and retaining walls associated with the road; and
d. Whether there are any outstanding legal issues.

Any significant existing corridor and environmental conditions or issues may require additional analysis or assessment by the Region or the local municipality before a recommendation is made concerning whether to transfer jurisdiction of the road.

1.3 FINANCIAL AND OPERATIONAL COSTS

Consideration shall also be given to the following financial and operational matters:

a. Anticipated long-term operating and capital costs of the road (asset management/life cycle costs);
b. Short-term maintenance costs taking into consideration the condition of the road;
c. Impact of road operational plans and facilities; and
d. Development charges and asset replacement reserves to be transferred by the local municipality.

Source: York Region Regional Road Assumption Policy (June 2014)

It should be noted that identifying existing corridor and environmental issues, as well as financial and operational costs is beyond the scope of this TMP. Therefore, the road segments were solely assessed against the regionally significant transportation network criteria in the policy, as summarized as item 1.1 in **Table 4-7.**

Based on the policy guidelines and consultation with the Township, the potential candidate road segments to be transferred to York Region and their rationale are identified and summarized in **Table 4-8**.

Table 4-8: Potential Candidate Road Segments for Transfer to York Region

ROADWAY	FROM	TO	RATIONALE
Caledon King Townline	17th Sideroad	Township's South Limits	→ Performs a cross-boundary, inter-regional or inter-municipal function. → Performs like an arterial road (current and forecasted future AADT > 5000 veh).
Caledon King Townline	Highway9	19th Sideroad	→ Performs a cross-boundary, inter-regional or inter-municipal function.
Miller's Sideroad	Dufferin Street	Bathurst Street	→ Performs like an arterial road (current and forecasted future AADT > 5000 veh). → Provides a logical connection in the Regional road network and will fill a gap where one currently exists. Connects to Green Lane West in Newmarket, which is a Regional road.
17th Sideroad	Jane Street East	Dufferin Street	→ Performs like an arterial road (current and forecasted future AADT > 5000 veh). → Provides a logical connection in the Regional road network and will fill a gap where one currently exists. Connects to several Regional roads:16th Sideroad to the east, and crosses Janes Street, Keele Street, and Dufferin Street.

There are additional roadways that currently do not necessarily meet the thresholds of the Region's policy, but are potential candidates to be transferred to the Region based on the future Region recommended road network and the proposed goods movement corridors in this TMP. A summary of these road segments and their rationale are provided in **Table 4-9.**

Figure 4-29 provides a visual summary of all the proposed roadways with potential to be uploaded. For these road segments identified, it is proposed that the Township begin discussions with the Region on their transfer to Regional control due to the high level of regional and inter-regional traffic using these segments.

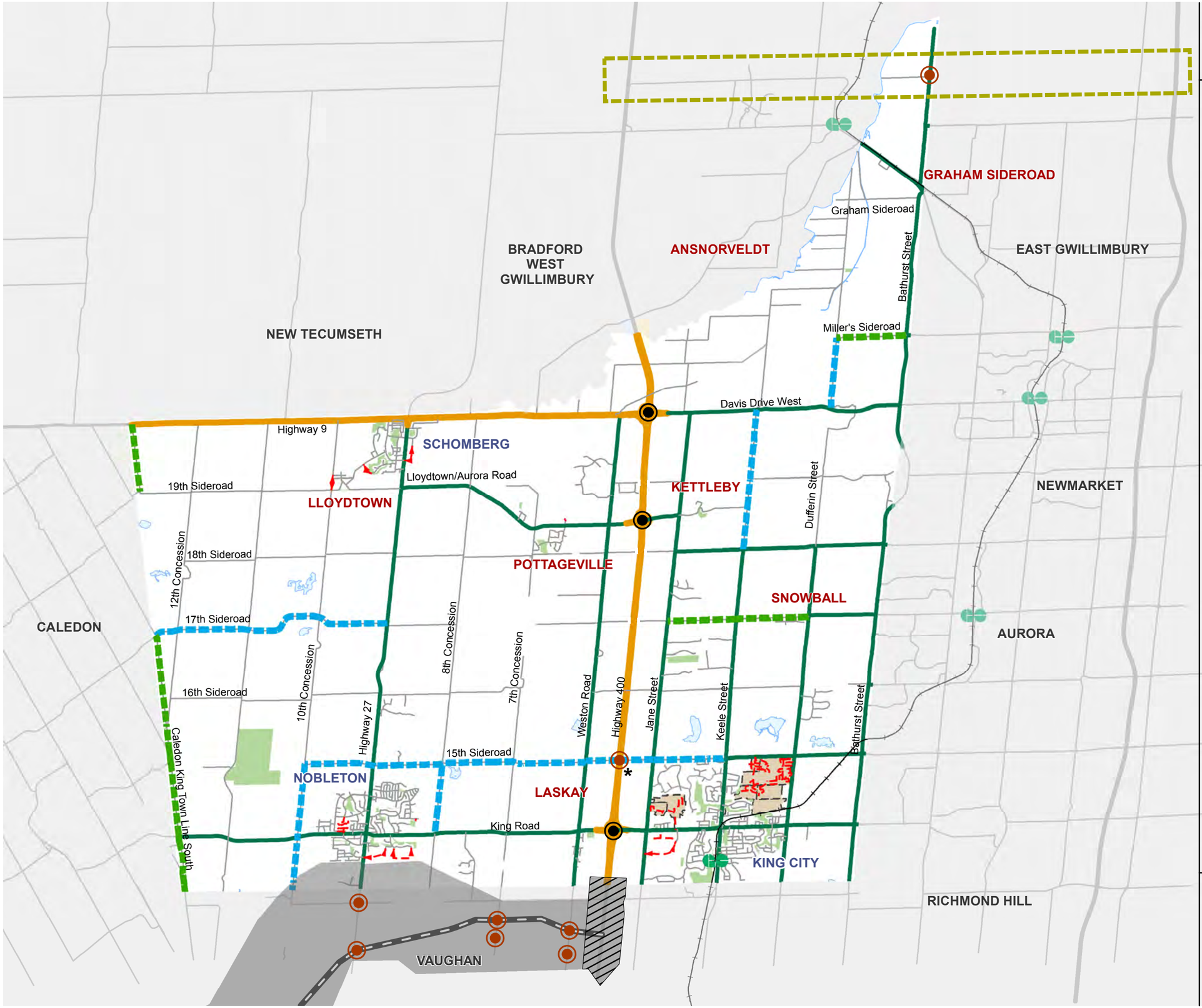
It should be noted that any potential road transfer proposed in this TMP is subject to future review and approval by York Region, and Council's approval as may be required by York Region, in accordance with the Regional Road Assumption Policy.

Table 4-9: Road Segments for Transfer to York Region to Consider (for future discussions)

ROADWAY	FROM	TO	RATIONALE
15th Sideroad	10th Concession	Keele Street	→ 15th Sideroad from Bathurst Street to Highway 400 is proposed as a primary arterial goods movement corridor in York Region's TMP (2016). Furthermore, an interchange at Highway 400 and 15th Sideroad is proposed for horizon year 2032 to 2041. Therefore, 15th Sideroad will provide a direct link to the Provincial highway system. → To prevent high east/west heavy vehicle traffic passing through Nobleton via King Road, the primary arterial goods movement corridor along 15th Sideroad should be proposed west to 10th Concession. → In addition, to prevent heavy north/south heavy vehicle traffic from passing through Nobleton via Highway 27, 10th Concession and 8th Concession from 15th Sideroad to King Road should also be part of York Region's goods movement network. It should be noted that stop signs along 8th Concession should not be used as a deterrent to prevent north-south traffic.
10th Concession	15th Sideroad	King Vaughan Road	
8th Concession	15th Sideroad	King Road	
Dufferin Street	Miller Sideroad	Davis Drive West	→ Provides connectivity between Miller's Sideroad and Davis Drive West, which are Regional roads experiencing high volumes of traffic. To also be proposed as part of the goods movement network.
Keele Street	18th Sideroad	Davis Drive West	→ Keele Street to the south of 18th Sideroad is currently a Regional road. The segment provides a logical north-south connection between two Regional roads (Davis Drive West and 18th Sideroad). → The current traffic on the roadway is comprised of approximately 5% heavy vehicles.

FIGURE 4-29
TOWNSHIP ROADS SERVING REGIONAL FUNCTIONS

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



- Waterbody
- Park / Open Space
- Current Proposed Development Application
- Bradford By-pass Planning Study Area
- Potential Freeway-to-Freeway Interchange
- GTA West Corridor Technically Preferred Route
- GTA West Corridor Planning Study Area
- Existing Interchange Location
- Potential Interchange Location

Road Network

- Provincial Highway / Freeway
- Regional Road
- Township Road

Potential Roads to be Uploaded to Regional

- Road currently serving regional functions
- Road that will potentially serve regional functions (for further discussion)

Other Transportation Network Features

- New 2-Lane Road (Approved)
- New 2-Lane Road (Linkage)
- GO Train Station
- GO Train Rail Line

Note:

* Special Study Area: the proposed alignment and location of specific projects remain conceptual at this time. These concepts remain subjective to review and confirmation through the Planning Act, the applicable environmental assessments process established under the Environmental Assessments Act and preliminary and detailed design.

N

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Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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4.6 PROPOSED RECOMMENDATIONS

In summary, the following roadway recommendations are proposed for the Township's consideration to guide the planning, design, implementation and operations of its road network:

1. Establish a rational road classification to guide future planning and capital works, as provided in **Figure 4-15** to **Figure 4-18**;
2. Update the Township's Official Plan to reflect the right-of-way needs and ensure that sufficient ROW is protected to accommodate roadway components as per the Township's design standard;
3. Work with the Region to consider development of the proposed goods movement routes identified in **Figure 4-28**;
4. Conduct studies to assess the potential impacts of the GTA West Corridor on the villages of Nobleton and King City. The Township should also consider working with the Region and neighbouring municipalities such as Vaughan to assess any land use impacts and implement land use policies to mitigate any potential impacts;
5. Work with the Region to commence an environmental assessment study for 15th Sideroad to investigate the feasibility and impacts of extending and widening the road between Highway 400 and Bathurst Street. Special studies may be required for this proposed project as it is within an environmentally sensitive area;
6. Commence dialogue with York Region regarding the uploading of roads in the short and medium term in accordance with York Region's policy, and obtain Council's approval, as may be required; and
7. Update the functional design and parking capacity report for the King Road and Keele Street intersection, and move towards implementation of recommendations.

5 ACTIVE TRANSPORTATION

Active transportation (AT) refers to any form of human-powered transportation that facilitates active living, including:

- Walking, jogging, running;
- Cycling;
- In-line skating;
- Skateboarding;
- Cross-country skiing and snowshoeing; and
- Using a wheelchair.

Active transportation is supported by the Township of King and Region as an integral component of a multi-modal transportation system to enhance mobility options and accessibility for people of all ages and abilities. Active transportation can also provide cost-effective travel options that reduce greenhouse gas (GHG) emissions and mitigate climate change impacts. In addition to active transportation for the purposes of regular travel, the Township's extensive trail system, a section of which is shown in **Figure 5-1**, helps support local and regional tourism initiatives and accommodates active forms of recreation such as hiking and off-road cycling, particularly in the Oak Ridges Moraine and Greenbelt areas.

As part of developing the Township's 2020 TMP, a process was undertaken to review, refine and identify a preferred active transportation network. The following sections provide an overview of key components for the active transportation network including the current conditions in King, recommendations identified in previous planning documents, gaps and infill links, facility types and potential enhancements. The information contained in the following sections is intended to be used as a reference for Township staff when addressing the future planning of active transportation infrastructure.

Figure 5-1: King Township Municipal Centre

Source: WSP

5.1 EXISTING CONDITIONS

Based on information from the 2016 Transportation Tomorrow Survey (TTS), approximately 3% of residents in the Township cycle and walk as their primary mode of transportation. These trips are typically originating in the Township's most populated areas including King City, Nobleton and Schomberg, where there are higher number of residents and community destinations.

Research shows that a typical walking distance, such as to transit, is 400 metres (5 minutes) to 800 metres (10 minutes), and average cycling distance can range from 1 kilometre (4 minutes) to 5 kilometres (20 minutes). As the distance increases, it is more difficult to attract people to walk and ride a bicycle. The Township should strive to provide high quality walking and cycling facilities that are comfortable and convenient to a wide range of users to maximize return on transportation investments. The Township's three villages, King City, Nobleton and Schomberg, are considered to have higher potential for walking and cycling, as the urban boundaries are less than 1.5 kilometres from the centres. For further distances where transit may be more appropriate, such as the King City GO Station, active transportation is typically used as a first or last-mile connection. First and last-mile trips refer to the beginning and end of transit trips between stations or stops to homes.

In total, there are over 300 kilometres of existing active transportation facilities. These include routes under the jurisdiction of York Region, The Township of King, Lake Simcoe Region Conservation Authority (LSRCA) and Toronto and Region Conservation Authority (TRCA). **Table 5-1** summarizes the different facility types and lengths.

Table 5-1: Summary of Existing AT Facilities

FACILITY	LENGTH (KM)
Sidewalk	85.7
Off-Road Trail	136.3
Bike Lane	2.7
Paved Shoulder	73.2
Signed Route	21.9
Total	**319.8**

Source: 2019 King Township GIS Database

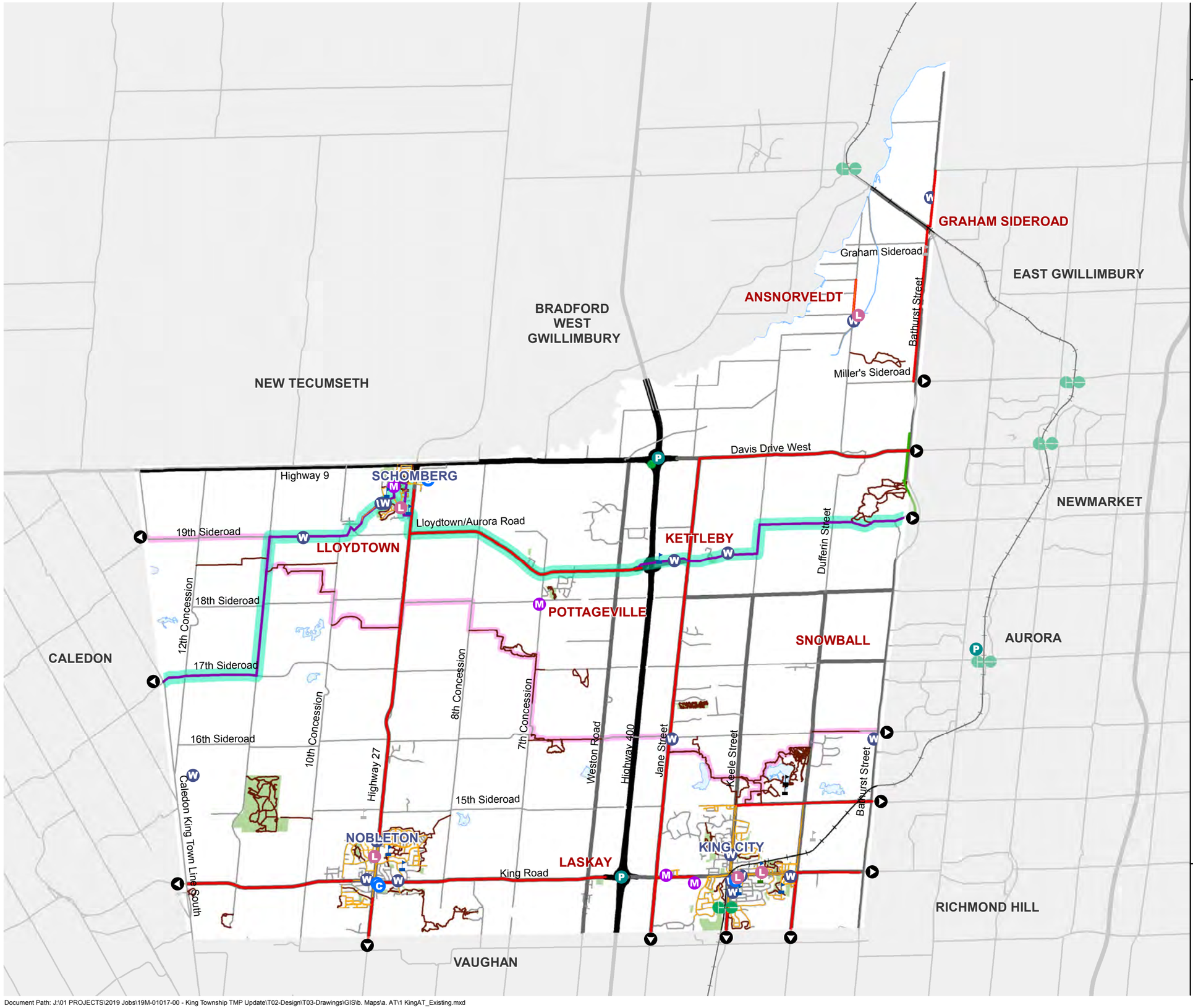
This table summarizes the length of existing facility types located on roads and lands under the jurisdiction of the Township, Region and Conservation Authorities.

It is recommended that a future study, such as a separate Active Transportation Master Plan, be undertaken and as part of this scope, organize geo-spatial information (GIS data to include jurisdiction information) regarding existing routes and facilities. The Township should engage the Region's Sustainable Mobility Section when undertaking this future study.

Figure 5-2 to **Figure 5-5** illustrate the existing active transportation network by facility type. **Table 5-2** provides an overview for each facility type included in the Township's active transportation network.

FIGURE 5-2
EXISTING ACTIVE TRANSPORTATION NETWORK

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



Active Transportation (AT) Network

- Carpool and Commuter Parking Lot
- Library
- Elementary School
- Secondary School
- Private School
- Seneca College
- Place of Worship
- Municipal / Community Hall
- Recreation / Arena / Community Centre
- Connection to Surrounding Municipality
- Waterbody
- Park / Open Space

- Sidewalk
- Off-Road Trail
- Bike Lane
- Paved Shoulder
- Signed Route

Regional AT Network

- Greenbelt Cycling Route
- Oak Ridges Trail

Transit Network

- GO Bus Stop
- GO Train Rail Line
- GO Station

Road Network

- Provincial Highway / Freeway
- Regional Road
- Township Road

N

0 2.5 5 km

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WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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FIGURE 5-3
KING CITY EXISTING ACTIVE TRANSPORTATION NETWORK

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

- Carpool and Commuter Parking Lot
- Library
- Elementary School
- Secondary School
- Private School
- Seneca College
- Place of Worship
- Municipal / Community Hall
- Recreation / Arena / Community Centre
- Connection to Surrounding Municipality

Active Transportation (AT) Network

- Sidewalk
- Off-Road Trail
- Bike Lane
- Paved Shoulder
- Signed Route

Regional AT Network

- Greenbelt Cycling Route
- Oak Ridges Trail

Transit Network

- YRT Bus Stop
- GO Bus Stop
- GO Station
- GO Train Rail Line

Road Network

- Provincial Highway / Freeway
- Regional Road
- Township Road

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Produced by:
WSP

Sources:
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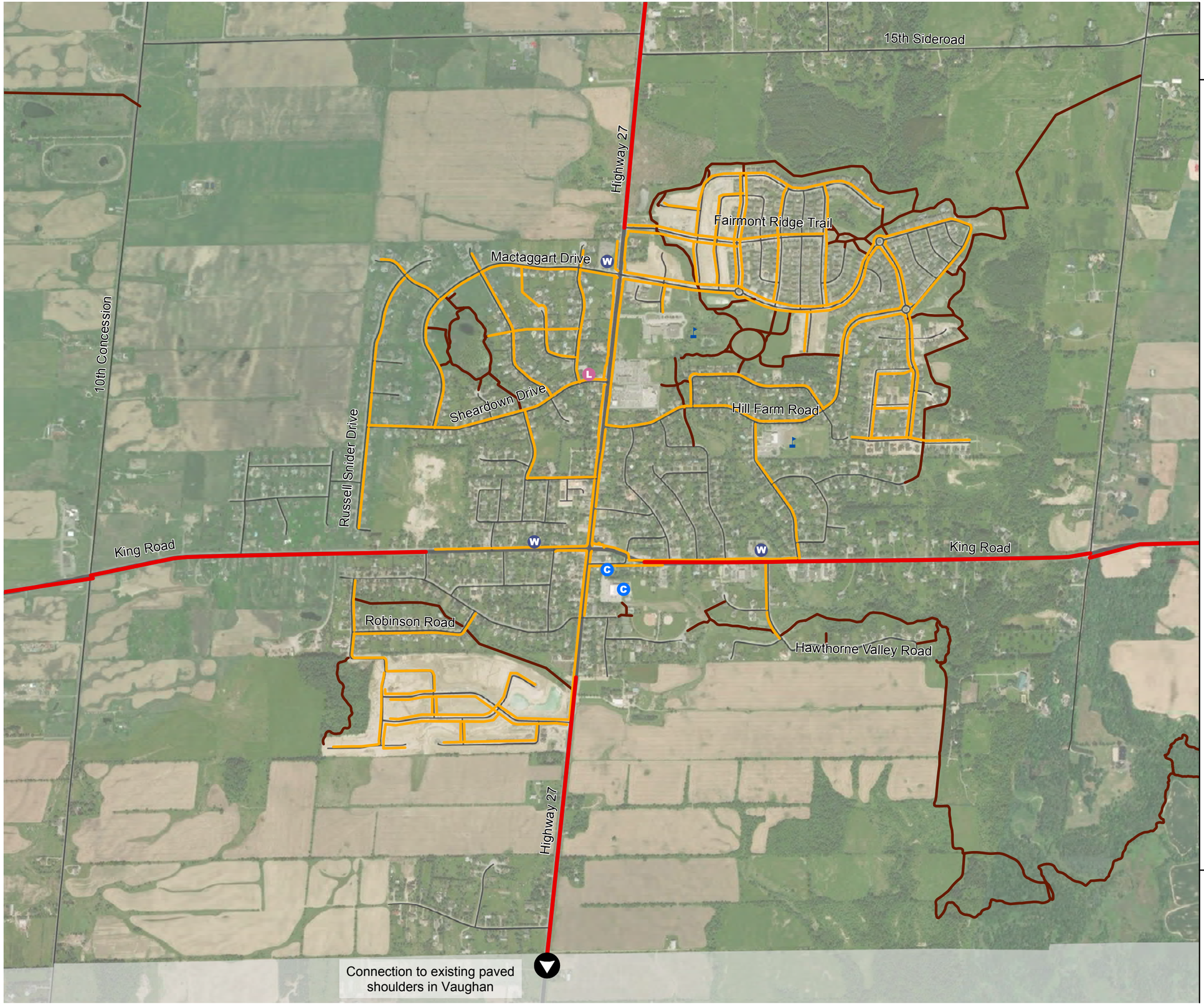
FIGURE 5-4
NOBLETON EXISTING ACTIVE TRANSPORTATION NETWORK



TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

- Carpool and Commuter Parking Lot
- Library
- Elementary School
- Secondary School
- Private School
- Seneca College
- Place of Worship
- Municipal / Community Hall
- Recreation / Arena / Community Centre
- Connection to Surrounding Municipality

Active Transportation (AT) Network

- Sidewalk
- Off-Road Trail
- Bike Lane
- Paved Shoulder
- Signed Route

Regional AT Network

- Greenbelt Cycling Route
- Oak Ridges Trail

Transit Network

- YRT Bus Stop
- GO Bus Stop
- GO Station
- GO Train Rail Line

Road Network

- Provincial Highway / Freeway
- Regional Road
- Township Road

N

0 0.5 1 km

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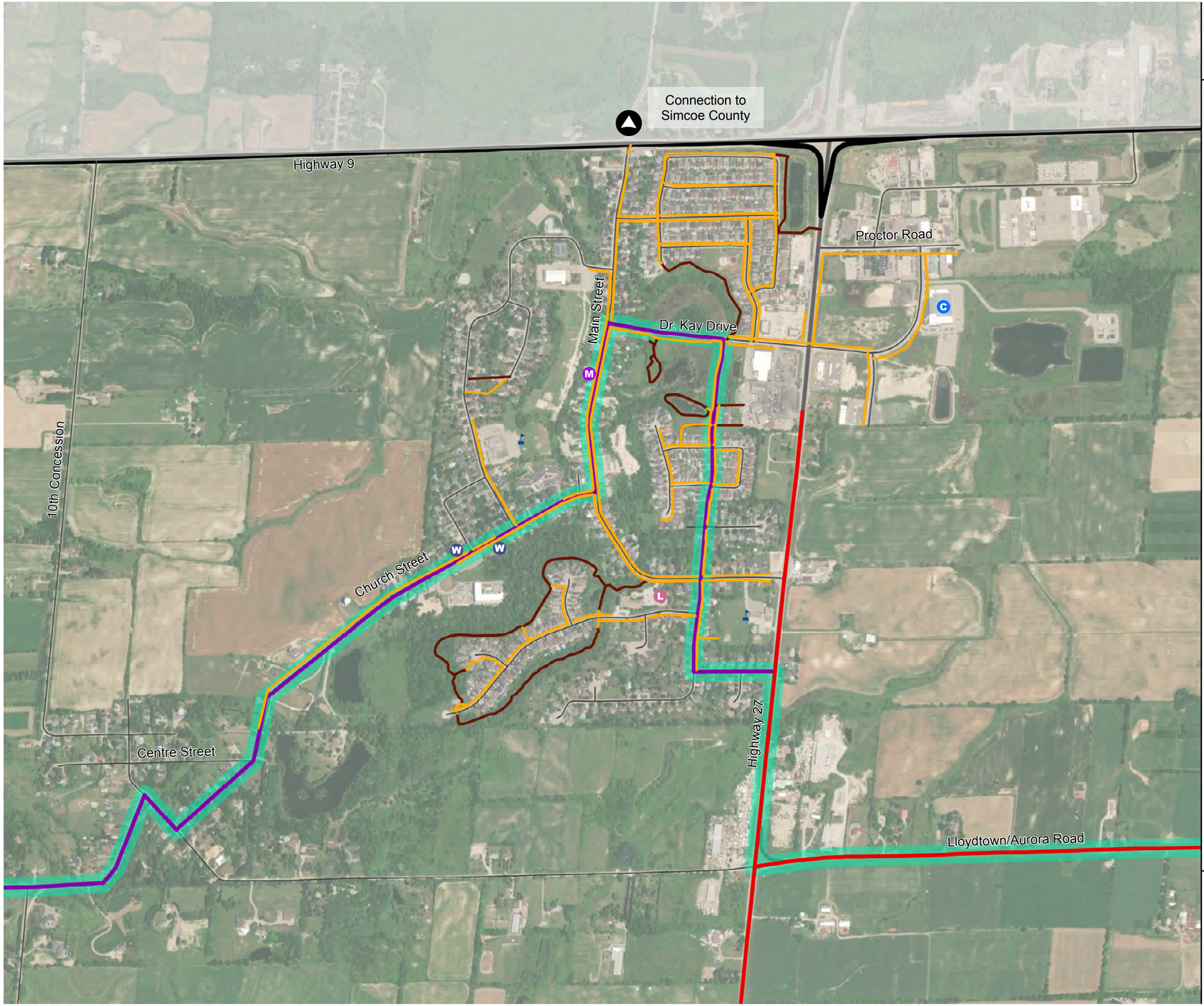
FIGURE 5-5
SCHOMBERG AND LLOYDTOWN EXISTING ACTIVE TRANSPORTATION NETWORK



TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

- Carpool and Commuter Parking Lot
- Library
- Elementary School
- Secondary School
- Private School
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- Place of Worship
- Municipal / Community Hall
- Recreation / Arena / Community Centre
- Connection to Surrounding Municipality

Active Transportation (AT) Network

- Sidewalk
- Off-Road Trail
- Bike Lane
- Paved Shoulder
- Signed Route

Regional AT Network

- Greenbelt Cycling Route
- Oak Ridges Trail

Transit Network

- YRT Bus Stop
- GO Bus Stop
- GO Station
- GO Train Rail Line

Road Network

- Provincial Highway / Freeway
- Regional Road
- Township Road

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0 0.35 0.7 km

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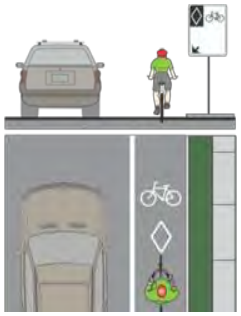
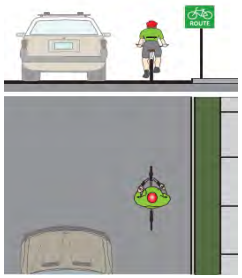
Table 5-2: Summary of Existing AT Facilities

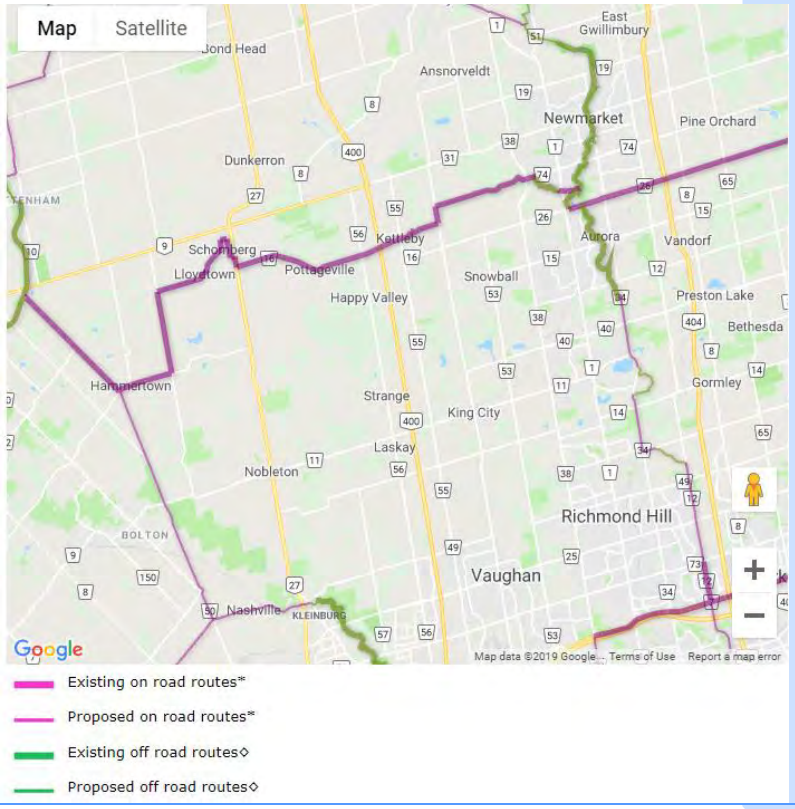
FACILITY TYPE	CROSS SECTION	DESCRIPTION	CONTEXT	RECOMMENDED WIDTH	EXAMPLES
Sidewalk		A space within the boulevard which accommodates pedestrians.	Urban	1.8 m	→ Burns Boulevard (King Road to Station Road) → Mactaggart Drive (Sheardown Drive to Highway27)
Off-Road Multi-Use Trail		A separated space typically through a natural area or corridor that accommodates pedestrians and cyclists. The surface type can range from natural surface to asphalt depending on the surrounding environment and expected type of uses.	Rural Urban	3.0 m	→ Oak Ridges Moraine Trail → King City Trails System → Cold Creek Conservation Area → Nobleton Trail System → Pottageville Park Trail → Centennial Park Trails → Happy Valley Forest → Thornton Bales Conservation Area
Bike Lane		Cyclists are provided with a designated space which is identified by pavement markings and signage. Bike lanes could include green painted treatment along key corridors. When approaching an intersection dash lines to allow for passing.	Urban	Lane 1.5 – 2.0 m	→ Bathurst Street (19th Sideroad to Davis Drive West)

FACILITY TYPE	CROSS SECTION	DESCRIPTION	CONTEXT	RECOMMENDED WIDTH	EXAMPLES
Paved Shoulder		Cyclists are provided with a shared space on the road platform. The route is signed as a bicycle route and could include supplementary share the road signage in select locations. In rural areas, bicycles would share the same shoulder space with farming equipment (tractors).	Rural	1.5 – 2.0 m	→ Jane Street (King-Vaughan Road to King Road) → 15th Sideroad (Keele Street to Bathurst Street) → King Road (Caledon-King Townline to 10th Concession Road)
Signed Bike Route		Motorists and cyclists share the same vehicular travel lane. Bicycle route signs are used to provide route guidelines. Could be supplemented by a Share the Road Sign in select locations (poor sightlines).	Rural Urban	Shared lane	→ 19th Sideroad (Keele Street to Bathurst Street) → Dr. Kay Drive (Main Street to Cooper Drive) → Cooper Drive / Main Street (Dr. Kay Drive to Highway 27)

5.2 PLANNED IMPROVEMENTS

The Town's active transportation network is intended to build upon routes that are already existing and routes that have been previously identified in other planning documents, or routes identified by other agencies. The following is a detailed description of the various jurisdictions and elements that provided input into the strategic direction of the Township's active transportation network:

REGIONAL ROUTES	York Region's 2016 TMP identified areas of improvement, focusing on the regional gateways and connections between municipalities. Along Regional roads, the TMP proposed sidewalk improvements within Nobleton, King City and Schomberg to fill in gaps. Key corridors within King that had recommended improvements include: North-South → Highway 27 → Weston Road → Jane Street → Keele Street → Dufferin Street → Bathurst Street East-West → Davis Drive → St. John's Sideroad → Lloydtown-Aurora Road → 19th Sideroad → 15th Sideroad → King Road
REGIONAL TRAIL SYSTEMS	LSRCA and TRCA both have jurisdiction over several natural areas with trails located within the Township. LSRCA manages the northern area of King, specifically the conservation areas of Thornton-Bales and Tyrwhitt. There are current no planned trail expansions. TRCA released a draft Trails Strategy in November of 2018. This included six significant trail projects in King: → Humber-Don Connection (3.2 kilometres) → Humber Trail (20.3 kilometres) ▪ High priority ▪ Connects Nashville Conservation Reserve to Bolton → Moraine Corridor Park Trail (3.3 kilometres) ▪ Medium priority → Oak Ridges Corridor Park Trail (2.2 kilometres) ▪ High priority → The Meadoway (King) (10.2 kilometres) → The Meadoway (King-Vaughan) (12.9 kilometres) TRCA also suggests destination capital projects that support local trails tourism and connect to the Township including Hills of the Headwater, Humber Valley Wilderness and Kettle Lakes.

METROLINX REGIONAL TRANSPORTATION PLAN	Metrolinx's Regional Transportation Master Plan included recommendations for cycling improvements. The routes proposed pertain to the recommended routes in the Regional TMP.
PROVINCIAL CYCLING NETWORK	The Province-wide Cycling Network study is another step in Ontario's efforts to support the growing trend of cycling as a means of transportation, recreation and tourism. MTO, in partnership with the Ministry of Tourism, Culture and Sport (MTCS), initiated the study to identify a network of on and off-road cycling routes to provide a wide range of cyclists with the facilities necessary to explore Ontario by bike. Within the Township, the Province-wide Cycling Network includes: → The Greenbelt Route from the Peel Region boundary, along 17th Sideroad, 11th Concession, 19th Sideroad, through Schomberg, Hwy 27, Lloydtown-Aurora Road, Keele Street and 19th Sideroad to the Newmarket boundary → Hwy 50 along the Peel Region boundary from 17th Sideroad to the Vaughan boundary → Hwy 11 from the Simcoe Region boundary to the East Gwillimbury boundary **Province-wide Cycling Network in King Township, MTO, 2018** 

LOCAL ROUTES	The Township's 2015 TMP included recommendations that were considered and incorporated into this TMP. The recommendations proposed were to focus on co-ordination with York Region to define networks that better connect to key destinations, such as schools, community centres and transit hubs. The Township of King also has a Trails Master Plan, which has a high-level review of the existing trails network. Recommendations from the Plan include: → Upgrades to existing trails; → New trails for increased accessibility and connectivity; → Enhanced signage, wayfinding and trailheads; → Recommendations for maintenance and operations; and → Strategies for increasing awareness of trails. Large-scale subdivision developments have proposed the implementation of active transportation routes. Most notably, the King City East development at the south-west section of Dufferin Street and 15th Sideroad has proposed sidewalks on one side of most of the new planned roads. Multi-use paths are also planned along one side of the planned roads that link to 15th Sideroad and Dufferin Street.

5.3 GAPS

Building upon existing and previously proposed routes, the Township's active transportation network was assessed to better understand current gaps and potential areas where infill links can enhance network connectivity and complete missing routes within King. To support the TMP objectives, infill links were identified to help enhance opportunities for active transportation and recreation within the Township, and to support the integration of walking, cycling and other active forms of travel into the overall transportation system for the Township.

The selection of potential new infill links reflects current best practices related to the planning and design of multi-modal transportation systems including Ontario Traffic Manual Book 18: Cycling Facilities (2013 and forth-coming update) and Book 15: Pedestrian Crossings (2016) as well as York Region's Transportation Master Plan (2016). Potential infill links for the Township's active transportation were identified based on several considerations including:

- → Completing gaps between existing routes / facilities;
- → Connections to regional trail systems;
- → Enhancing connectivity surrounding and within the Township's villages and hamlets;
- → Connecting to existing transit services including YRT and GO Transit;
- → Reflecting popular cycling routes as noted by residents, stakeholders and Township; and
- → Connecting to key destinations such as libraries, schools, recreational areas and community centres.

Potential new infill links can be grouped into three categories: on-road links, off-road links and sidewalks. Sidewalks were typically identified in locations where:

- There is a gap between existing sidewalks on the same side of the road (or in some locations, a gap between an existing sidewalk and off-road trail); and
- In locations where a sidewalk only exists on one side of the road and results in out-of-way travel to reach a key destination.

Table 5-3 provides an overview of each proposed infill link by category.

Table 5-3: Overview of Proposed Infill Links for the Active Transportation Network

Infill Links - On Road				
ROAD NAME	**FROM**	**TO**	**LOCATION**	**LENGTH (KM)**
Carmichael Crescent	Keele Street	Jenkinson Grove	King City	0.6
Jenkinson Grove	Carmichael Crescent	Tawes Trail	King City	0.23
Burton Grove	Keele Street	McBride Crescent	King City	0.26
McBride Crescent	Burton Grove	Elizabeth Grove	King City	0.35
15th Sideroad	10th Concession	7th Concession	Nobleton	6.14
10th Concession	15th Sideroad	King Road	Nobleton	2.16
TOTAL				**9.74**

Infill Links - Off Road				
ROUTE NAME	**FROM**	**TO**	**LOCATION**	**LENGTH (KM)**
Proposed extension of King City Trail that terminates at Manitou Drive	Manitou Drive	140 metres south / west of Manitou Drive within vacant land parcel	King City	0.14
Proposed connection to Cold Creek CA Trail along Bluff Trail	Cold Creek CA Trail along Bluff Trail	170 metres north / east to existing off-road trail	Nobleton	0.17
Proposed off-road trail from Gilbert Fuller Drive	Gilbert Fuller Drive	Existing crushed limestone trail south of Farmcrest Court	Nobleton	0.31
Proposed off-road trail from Sheardown Drive to King Road	Sheardown Drive (at Mactaggart Drive)	King Road (at Henry Gate)	Nobleton	0.5
TOTAL				**1.12**

INFILL LINKS - SIDEWALKS				
ROUTE NAME	FROM	TO	LOCATION	LENGTH (KM)
King Road and driveway into Township municipal centre	Burns Boulevard	Driveway entrance into the Township of King municipal centre	King City	0.57
Keele Street	Burton Grove	Sculptors Gate	King City	0.22
King Road	Wellington Street	Henry Gate	Nobleton	0.51
King Road	Lynwood Crescent	Woodhill Crescent	Nobleton	0.42
Main Street	Highway9	100 metres south to existing sidewalk	Schomberg	0.1
Highway27	Dr. Kay Drive	Main Street	Schomberg	0.63
Dr. Kay Drive	Foodland driveway	Highway27	Schomberg	0.08
Main Street	Petro-Canada driveway	Highway27	Schomberg	0.02
TOTAL				**2.55**

In total, an additional 13 kilometres of new routes are proposed as part of this TMP to complete the Township's active transportation network. All new infill links were further assessed to determine a preliminary recommendation for an appropriate facility type.

5.4 PROPOSED NETWORK BY FACILITY TYPES

Infill links were assessed to determine the most appropriate facility type based on the roadway characteristics including traffic volume and operating speeds. The proposed facility types are meant to achieve a network that can accommodate all ages and all abilities and can help to enhance opportunities for active travel and recreation in the Township of King.

The proposed active transportation routes by facility types are presented in **Figure 5-6** to **Figure 5-9** and summarized in **Table 5-4**. In total, there are 263 kilometres of proposed active transportation facilities in the Township. This includes routes that were previously proposed in other planning documents (see **Section 5.2**) as well as new infill links (approximately 13 kilometres – refer to **Section 5.3**) identified through this study.

Majority of the proposed facility types already exist within the Township; the only new proposed facility type is the In-Boulevard Pathway or Multi-Use Path. Multi-Use paths provide safe off-road areas for a variety of user groups to travel. While developing them in urban corridors is ideal, special limitations may prohibit the development and may require creative planning and implementation to provide continuous links to key transportation nodes.

Table 5-4: Overview of the Active Transportation Network by Facility Type

FACILITY TYPE	EXISTING	PROPOSED	TOTAL
Off-Road Trail	136.3	89.4	225.7
In-Boulevard Pathway (Multi-Use Paths)	0	12.7	12.7
Bike Lane	2.7	3.2	5.9
Paved Shoulder	73.2	72.8	146.0
Signed Route	21.9	63.7	85.6
Sidewalk	85.7	21.5	107.2
Total	**319.8**	**263.3**	**583.1**

The proposed facility that form part of the Township's active transportation network are intended to be consistent with existing guidelines and standards. All active transportation facilities along existing or proposed Regional roads should adhere to the Region's Pedestrian and Cycling Planning and Design Guidelines. In addition, it is recommended that the following be used and referred to as the most applicable resources for AT facility design in the Township of King:

- Ontario Traffic Manuals Books 18 (Cycling Facilities) and 15 (Pedestrian Crossings); and
- Ministry of Transportation Ontario (MTO) Bikeways Design Manual.

These resources can be supplemented by several existing guidelines including:

- National Association of City Transportation Officials Urban Bikeway Design Guide;
- Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads;
- Transportation Association of Canada (TAC) Bikeway Traffic Control Guideline for Canada; and
- Accessibility for Ontarians with Disabilities Act – Built Environment Standards.

These guidelines are recommended to be used by Township staff and its partners when moving forward with the planning, design and implementation of future active transportation facilities in King.

FIGURE 5-6
RECOMMENDED ACTIVE TRANSPORTATION NETWORK

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

- Carpool and Commuter Parking Lot
- Library
- Place of Worship
- Elementary School
- Secondary School
- Private School
- Seneca College
- Municipal / Community Hall
- Recreation / Arena / Community Centre
- Connection to Surrounding Municipality
- Waterbody
- Park / Open Space
- Current Proposed Development Application

Active Transportation (AT) Network

Existing	Proposed[1]
	Sidewalk
	Off-Road Trail
N/A	In-Boulevard Pathway
	Bike Lane
	Paved Shoulder
	Signed Route

Proposed AT Improvement

- Crossing Enhancement
- Cycling Loop

Regional AT Network

- Greenbelt Cycling Route
- Oak Ridges Trail

Transit Network

- GO Bus Stop
- GO Station
- GO Train Rail Line

Road Network

- Provincial Highway / Freeway
- Regional Road
- Township Road (Approved or Constructed)
- Township Road (Linkage)

Note:
1. Includes routes that were previously proposed in the 2015 King Township TMP and by TRCA.

0 2.5 5 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

This map is illustrative only. Do not rely on it as being a precise indicator of routes, locations of features, nor as a guide to navigation. The Township of King shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.

March 2020

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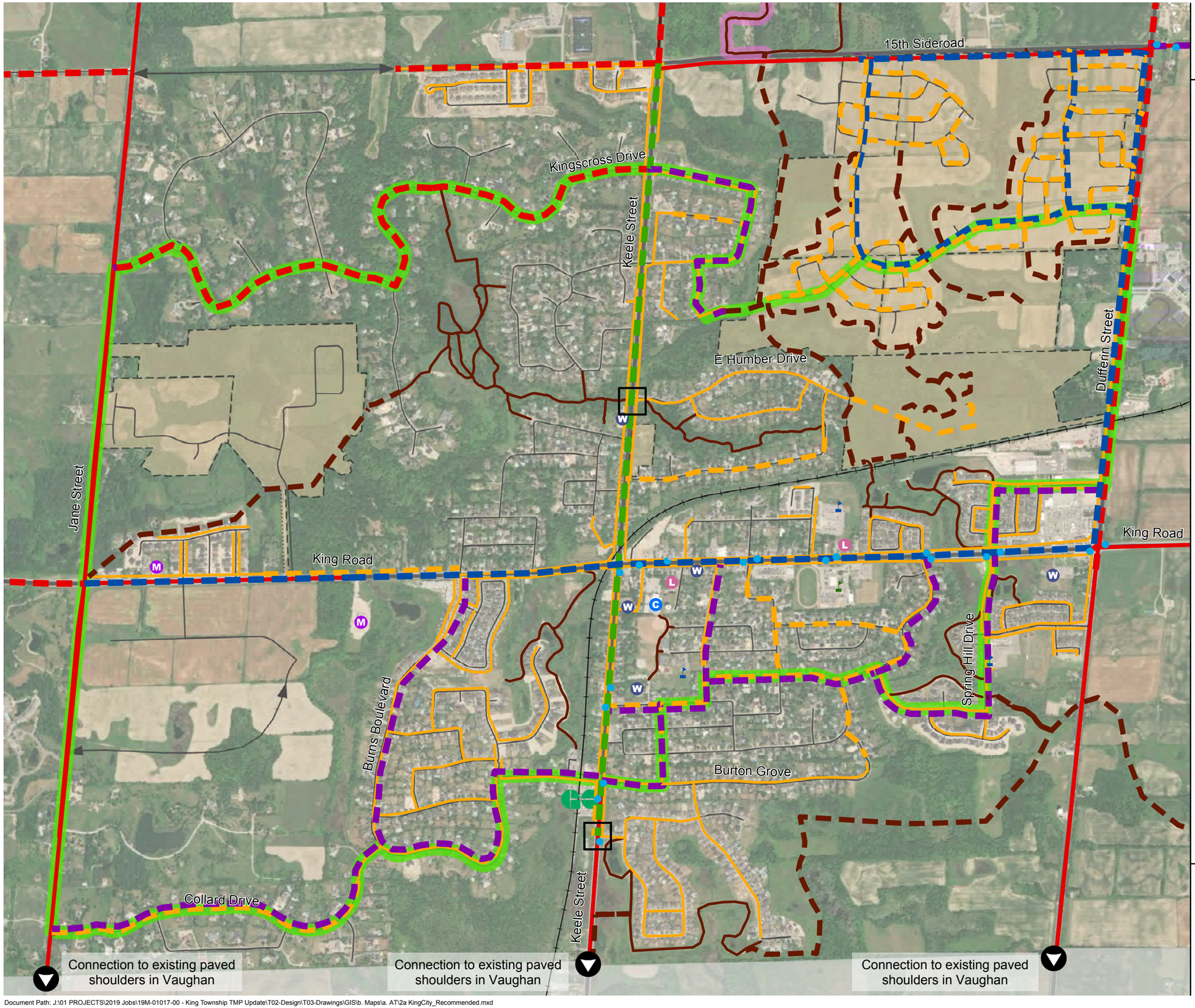
FIGURE 5-7
KING CITY RECOMMENDED ACTIVE TRANSPORTATION NETWORK



TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

- Carpool and Commuter Parking Lot
- Library
- Elementary School
- Secondary School
- Private School
- Seneca College
- Place of Worship
- Municipal / Community Hall
- Recreation / Arena / Community Centre
- Connection to Surrounding Municipality
- Current Proposed Development Application

Active Transportation (AT) Network

Existing	Proposed[1]
	Sidewalk
	Off-Road Trail
N/A	In-Boulevard Pathway
	Bike Lane
	Paved Shoulder
	Signed Route

Proposed AT

- Crossing Enhancement
- Cycling Loop

Regional AT

- Greenbelt Cycling Route
- Oak Ridges Trail

Transit Network

- YRT Bus Stop
- GO Bus Stop
- GO Station
- GO Train Rail Line

Road Network

- Provincial Highway / Freeway
- Regional Road
- Township Road (Approved or Constructed)
- Township Road (Linkage)

Note:
1. Includes routes that were previously proposed in the 2015 King Township TMP and by TRCA.

0 0.5 1 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King, ESRI
Projection: UTM NAD83 Zone 17

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March 2020

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FIGURE 5-8
NOBLETON RECOMMENDED ACTIVE TRANSPORTATION NETWORK

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

- Carpool and Commuter Parking Lot
- Library
- Elementary School
- Secondary School
- Private School
- Seneca College
- Place of Worship
- Municipal / Community Hall
- Recreation / Arena / Community Centre
- Connection to Surrounding Municipality
- Current Proposed Development Application

Active Transportation Network

Existing	Proposed[1]
	Sidewalk
	Off-Road Trail
N/A	In-Boulevard Pathway
	Bike Lane
	Paved Shoulder
	Signed Route

Proposed AT Improvements

- Crossing Enhancement
- Cycling Loop

Regional AT Network

- Greenbelt Cycling Route
- Oak Ridges Trail

Transit Network

- YRT Bus Stop
- GO Bus Stop
- GO Station
- GO Train Rail Line

Road Network

- Provincial Highway / Freeway
- Regional Road
- Township Road (Approved or Constructed)
- Township Road (Linkage)

Note:
1. Includes routes that were previously proposed in the 2015 King Township TMP and by TRCA.

0 0.5 1 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King, ESRI
Projection: UTM NAD83 Zone 17

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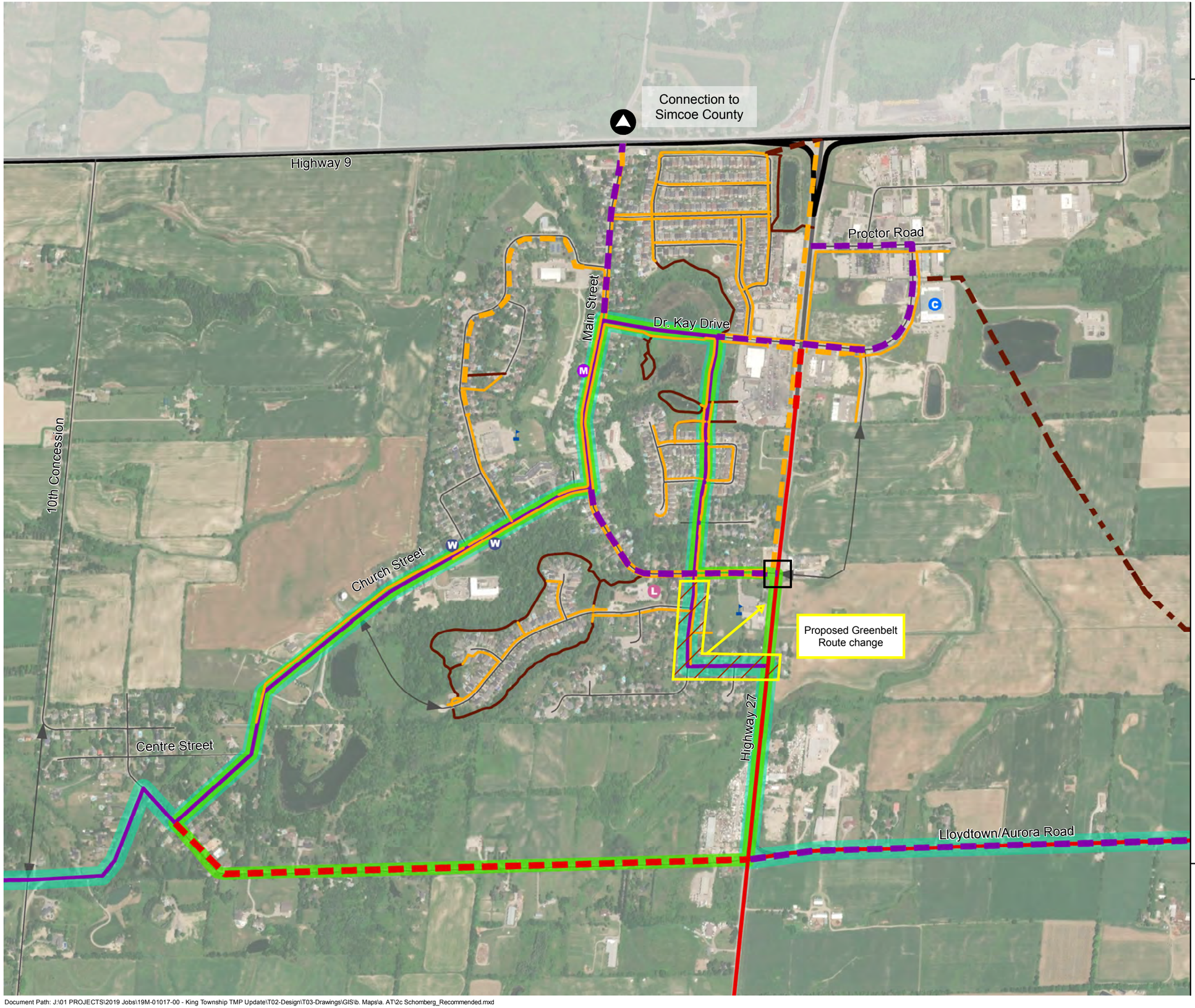
FIGURE 5-9
SCHOMBERG AND LLOYDTOWN RECOMMENDED ACTIVE TRANSPORTATION NETWORK

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



- Carpool and Commuter Parking Lot
- Library
- Elementary School
- Secondary School
- Private School
- Seneca College
- Place of Worship
- Municipal / Community Hall
- Recreation / Arena / Community Centre
- Connection to Surrounding Municipality
- Current Proposed Development Application

Active Transportation (AT) Network

Existing	Proposed[1]	
		Sidewalk
		Off-Road Trail
N/A		In-Boulevard Pathway
		Bike Lane
		Paved Shoulder
		Signed Route

Crossing Enhancement

- Crossing Enhancement
- Cycling Loop

Regional AT Network

- Greenbelt Cycling Route
- Oak Ridges Trail

Transit Network

- YRT Bus Stop
- GO Bus Stop
- GO Train Station
- GO Train Rail Line

Road Network

- Provincial Highway / Freeway
- Regional Road
- Township Road (Approved or Constructed)
- Township Road (Linkage)

Note:
1. Includes routes that were previously proposed in the 2015 King Township TMP and by TRCA.

0 0.35 0.7 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King, ESRI
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March 2020

NETWORK COMPONENTS

In addition to the proposed routes and facilities, there are two network components that have been identified to help increase a user's sense of comfort and safety, and to encourage more people to engage in active forms of travel and recreation. These network components are illustrated in **Figure 5-6** to **Figure 5-9** and include:

Crossing Enhancements

Crossing enhancements have been proposed for system connectivity where there is a pedestrian or cycling desire line at a Regional road and a need for safer and more convenient crossing facilities. Intersections can be vulnerable locations for active transportation users, as this is the most common place where different modes interact.

There are six potential crossing enhancement locations identified on **Figure 5-6**, including:

- Keele Street at Sculptors Gate, King City
- Midblock crossing of King City Trail at Keele Street / E Humber Drive, King City
- King Road at Henry Gate, Nobleton
- Highway 27 at Ellis Avenue / Parkview Avenue, Nobleton
- King Road at Woodhill Avenue, Nobleton
- Highway 27 at Main Street, Schomberg

There are several design treatments that can help to improve a pedestrian's ability to cross a roadway or intersection: uncontrolled crossing ("wait for gap"), pedestrian crossover (PXO) and traffic signals.

Specific improvements should be reviewed and determined through future detailed studies to address the unique challenges and opportunities experienced by the particular location. It is recommended that the Township review and explore with York Region opportunities to provide safe mid-block pedestrian and active transportation crossings according to their Pedestrian and Cycling Planning and Design Guidelines.

Cycling Loops

These are intended to be all ages and abilities bicycle loop routes of between five to ten kilometres within the Township's villages of King City, Schomberg and Nobleton to connect cycling routes and destinations. The loops could contain wayfinding signage including the green Bicycle Route Marker sign and branded signage to direct users to surrounding trails, parks, community centres, attractions and other amenities for residents and visitors. In addition to cycling loops, "Discovery Walks" can be identified through wayfinding / branded signage to highlight the unique natural and cultural heritage of the area.

Examples of branded loop routes are illustrated below:

North Scarborough Green Loop, Toronto
Source: Scarborough Cycles

Waterloop Trail, Waterloo
Source: City of Waterloo

5.5 PROPOSED RECOMMENDATIONS

The purpose of the Active Transportation component in the Township's TMP is to guide next steps and future work to integrate active transportation into King's overall transportation system, and to enhance opportunities for active travel and recreation. The following recommendations have been identified to guide the planning, design, implementation and operations of active transportation:

1. Develop an Active Transportation (AT) Master Plan to review the recommended active transportation facility types identified in this TMP at a site-specific level, and identify strategies to inform supportive programs, policies, implementation tools and initiatives that support the Township's vision and objectives for active transportation.

   As part of the AT Master Plan, prioritize and phase the recommended network to implement the plan in a strategic and fiscally-responsible way. Many of the facilities require partnerships. Having an AT Master Plan will help leverage funding opportunities such as the York Region Pedestrian and Cycling Municipal Partnership Program, and the Ontario Municipal Commuter Cycling Program. An AT Master Plan also helps provide a mechanism for funding and implementing as part of the development process.

2. Work with Metrolinx and York Region to improve opportunities for active transportation users on Keele Street near the King City GO Station, as part of recommended improvements scheduled to start and end in 2020.

3. Prioritize for implementation and maintenance walkable pathways to key destinations such as Major Transit Station Areas (MTSA), community centres, schools and other facilities;

4. Work closely with York Region on the implementation of new pedestrian crossings of Regional Roads at identified locations within the urban areas of King City, Nobleton and Schomberg to improve pedestrian and cyclist safety and mobility. New pedestrian crossings require thorough analysis and careful consideration using engineering tools and data, and should also consider potential new design solutions such as pedestrian crossovers (PXOs) that are detailed in Ontario Traffic Manual Book 15: Pedestrian Crossings.

5. Work with web mapping services, such as Google Maps, to advertise active transportation routes by adding existing on and off-road infrastructure that can be viewed publicly. Township staff may also consider creating / enabling Google street view for all trails in King.

6. Work with Smart Commute and York Region on behaviour change programs to encourage active transportation and transit to replace drive-alone car trips during peak periods, such as getting to and from the King City GO Station.

7. Establish "cycling loops" within King City, Nobleton and Schomberg, and branding these loops with signage to direct people to trails, parks, community centres, attractions and other local amenities to generate interest in cycling for recreation, commuting, and tourism.

8. Partner with York Region to sign York Region Cycling Tour Routes within King for economic and tourism development. Signage placement should be consistent with the Region's cycling wayfinding guidelines and can be installed along routes including: Village Roundabout, Tour de Holland, and All-Terrain Ride. Consider implementing a pilot project using York Region's Pedestrian and Cycling Wayfinding Guidelines.

9. Support emerging active transportation technologies, such as e-bikes and e-scooters, by passing by-laws for usage and safe operations.

10. When roads are next scheduled for reconstruction, rehabilitation or resurfacing, where possible, widen roads with sufficient road base width to include up to two-metre paved shoulder and/or cycling facilities.

11 Understand full lifecycle costs of new infrastructure to support long-term sustainability of the network through an asset management plan. Pedestrian and cycling facilities should be considered as assets and appropriately managed by including maintenance, rehabilitation and replacement in the capital and operating budgets.

6 TRANSIT

Transit is a basic mobility service that provides residents access to employment, community resources, medical care facilities, and recreational activities within the Township and beyond. Integrating transit planning into broader economic and land use planning helps to reduce sprawl, and creates a sense of community by increasing street presence which enhances neighbourhood safety and security. A frequent, connected and reliable transit network also can help reduce road congestion, travel times and air pollution, all of which benefit both riders and non-riders.

To support the forecasted growth and create a more sustainable community, the Township needs to continue to engage York Region Transit (YRT) and GO Transit to enhance viable and accessible transit services for residents. Recognizing the challenge of providing quality transit over the Township's vast service area with moderate demand, the Township will need to continue working closely with these transit providers to develop a comprehensive transit strategy.

6.1 EXISTING CONDITIONS

Currently, the Township is served by several local YRT bus routes and GO Transit services. YRT operates fixed-route bus services on King Road, Keele Street, 15th Sideroad and Bathurst Street; Mobility On-Request (MOR) service is available within King connecting King City, Laskay, Nobleton, Schomberg, Pottageville and Kettleby. GO Transit also operates regional bus services within the Township in addition to the train service along the Barrie line; three GO bus services are provided including two regular service and one express service. A summary of the various YRT and GO Transit services within the Township along with service frequencies are provided in **Table 6-1**.

Table 6-1: Existing Transit Services

TRANSIT AGENCY	ROUTE	FREQUENCY (MINS)						
		EARLY AM	AM PEAK	MID-DAY	PM PEAK	EVENING	SATURDAY	SUNDAY
York Region Transit	22 King City	–	30	–	35	–	86	–
	32 Aurora South	30	30	60	30NB/ 15SB	*MOR	*MOR	–
	88 Bathurst	30SB/ 15NB	15	30	15	30	36	32
	96 Keele-Yonge	40	40	40	30	45	–	–
	MOR King Local	Rush Hours Only					–	–
GO Transit	Barrie Train Line	30SB	15SB	60	30NB	60	60	60
	63 King City – Toronto	60NB	–	–	–	–	60	60
	66 East Gwillimbury/ North York Express	15SB	30SB/ 60NB	60	60SB/ 30NB	–	–	–
	68C Barrie – New market	–	–	–	60NB	–	–	–

"–" → No Service "*MOR" → *Mobility On-Request Service "NB" → Northbound "SB" → Southbound

Source: York Regional Transit & GO Transit
Notes: GO Bus 66 only operates in the SB direction during weekday early mornings; GO Train Barrie Line only operates in the SB direction during weekday mornings and in the NB direction during PM peak periods; GO Bus 63 only operates in the NB direction during weekday early mornings; GO Bus 68C only operates in the NB direction during weekday PM peak periods.

Most transit services within the Township operate during the weekdays with few services operating on the weekends.

6.1.1 MOBILITY ON-REQUEST KING LOCAL

MOR is one of the on-demand services provided by YRT, which is a demand-responsive service that connects travellers to their requested stops. This service operates on a first-come, first-served basis, and is available during the morning and afternoon peak periods throughout the week; this service is classified as a "Rush Hours Only Dial-a-Ride". Users are required to book a ride at least 60 minutes ahead of time and a YRT-marked vehicle will pick them up and drop them off at the requested stop within the predetermined route.

6.1.2 GO TRANSIT

GO Transit operates both the Barrie commuter rail line and regional bus services in the Township. Three bus routes, #66, #63, and #68C currently operate within the Township limits. Out of the three routes, only Route #66 is designed to be a standalone route to support the service. It operates five days a week, Monday to Friday, connecting the Yorkdale subway station to the Newmarket bus terminal, with a stop at the Highway 9 at Highway 400 Park and Ride. The other two routes are designed to be complements to the Barrie Rail line, replacing train service during off peak periods and on weekends.

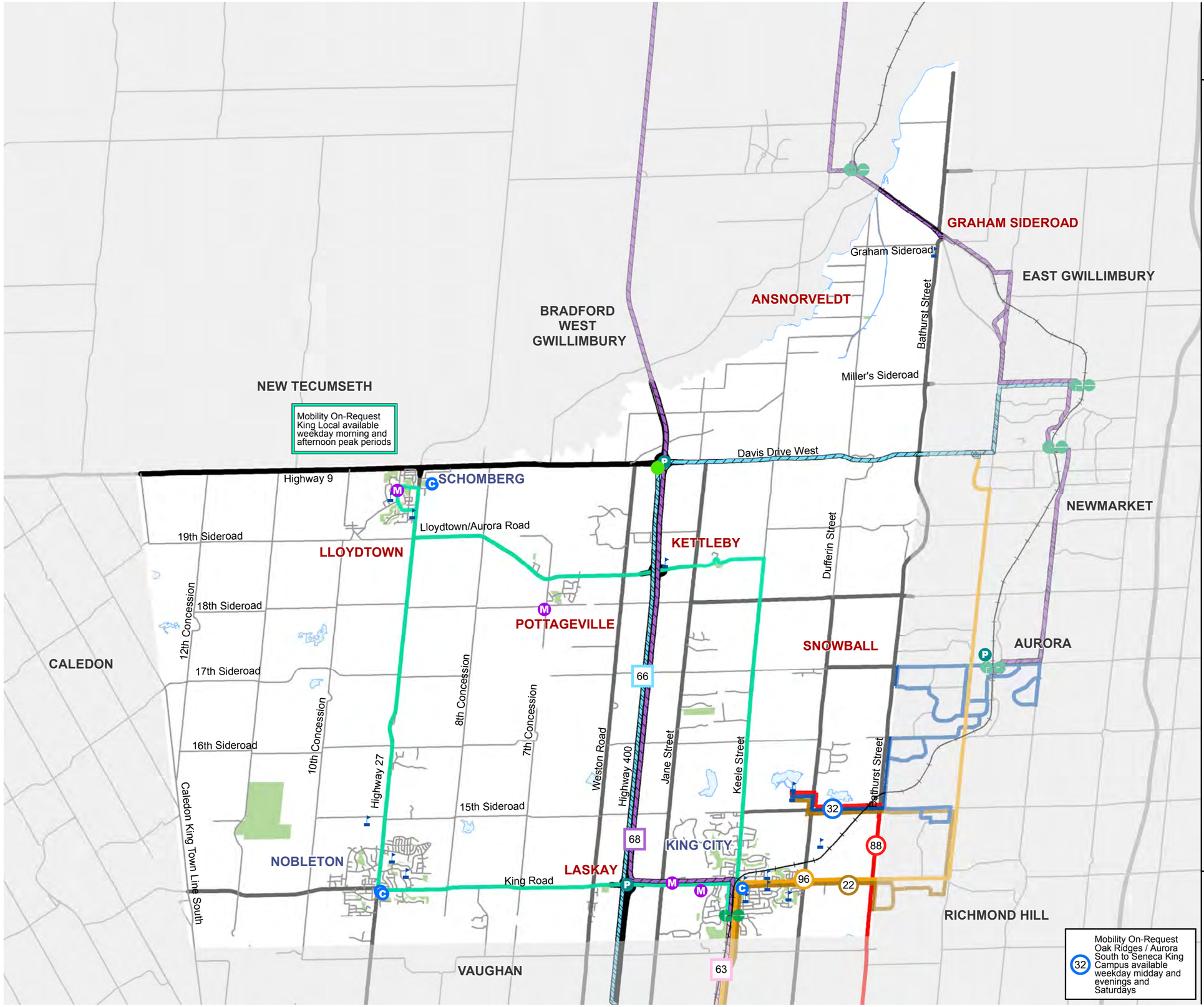
Currently, the King GO Station on the Barrie Line is the only train station that connects the Township to Downtown Toronto. It provides train services seven days a week with a focus on peak commuting directions. On weekdays, the southbound service stops by 3 p.m. and resumes around 9 p.m., with an a.m. peak hour headway of 15-minutes. The northbound service is available starting at 10:20 a.m., with a p.m. peak hour headway of 30-minutes. On weekends, service for either direction is available after 10 a.m.

Besides the Mobility On-Request service provided by Route #61, currently only two routes provided by YRT provide connecting service to the King City GO Station - Route #22 and #96. Commuters alighting the YRT buses and boarding the Barrie Line in the mornings consistently experience wait times around 15 minutes before the next train arrives. In the afternoons, commuters transferring from the GO train to the YRT buses also face similar challenges, although slightly shorter wait times.

The existing transit network within the Township is illustrated in **Figure 6-1**.

FIGURE 6-1
EXISTING TRANSIT NETWORK

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



Carpool and Commuter Parking Lot
Municipal / Community Hall
Recreation / Arena / Community Centre
School
Waterbody
Park / Open Space

Transit Network

GO Bus

GO Bus Stop
63 King City / Toronto
66 East Gwillimbury / Newmarket / North York
68 Barrie / Newmarket

YRT

22 King City
32 Aurora
88 Bathurst
96 Keele - Yonge
Mobility On-Request King Local

GO Train

GO Train Station
GO Train Rail Line

Road Network

Provincial Highway / Freeway
Regional Road
Township Road

N

0 2.5 5 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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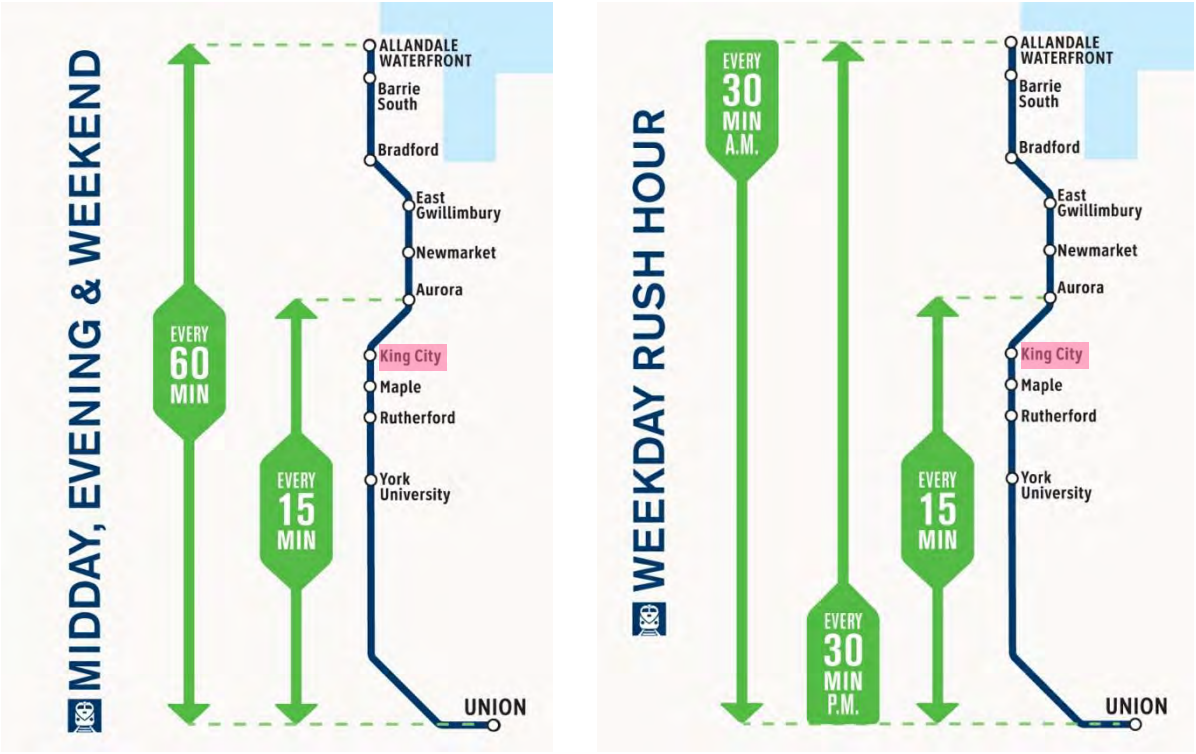
6.2 PLANNED IMPROVEMENTS

Several service and infrastructure improvements have been previously proposed by Metrolinx, York Region, YRT, and the 2015 King TMP. These improvements are discussed in the following sections.

6.2.1 METROLINX

In 2015, Metrolinx announced its signature project in the Greater Toronto and Hamilton Area (GTHA) region - GO Rail Expansion. The GO Rail Expansion is meant to be a transformative initiative to provide faster and more frequent service on the GO Transit rail network. As illustrated in **Figure 6-2**, under this program, the King City GO Station on the Barrie Rail Line will have15-minute two-way service during the weekday rush hours, mid-day, and evening periods. The improvements outlined in the Rail Expansion program are expected to be in place by 2026. The program is expected to more than double GO Rail's peak service and quadruple its off-peak service, which is expected to in turn increase ridership demand and increased transit modal split throughout the GTHA.

Figure 6-2: Rail Expansion along Barrie Rail Corridor



Source: Metrolinx Barrie Line Website (http://www.metrolinx.com/en/regionalplanning/rer/rer_barrie.aspx)

Furthermore, the Rail Expansion program has also identified several potential new stations that are to be confirmed through detailed studies. **Figure 6-3** shows the anticipated GO Rail service network and levels for the planned Rail Expansion program. On the Barrie Line, three potential new stations have been identified, including the Kirby GO Station south of King City GO Station.

In the same document, Metrolinx has also identified the role of transit in ensuring adequate station access. It highlights the importance of a direct, high frequency, local transit route with seamless transfer to GO rail.

Figure 6-3: Anticipated GO Rail Service Levels

Source: 2016 GO Rail Station Access Plan

Also included in the document were several station improvements Metrolinx intends to explore for the King City GO Station, prioritized for the following time periods:

Short-term (2017-2021):

- Encourage the Township of King to consider expediting the implementation of approximately four kilometres of proposed pedestrian infrastructure within a one-kilometre walking distance of King City GO;
- Consider implementing the modified reserve parking program on all existing parking spaces at this station (approximately 640 spaces); and
- As part of the planned improvements to the east station site, consider the following improvements:
  - Implementing a pedestrian connection along the east-west alignment of the signalized intersection;
  - Aligning the bus stops and shelters on the east and west side of Keele Street;
  - Incorporating a new pick-up/drop-off facility adjacent to the north end of the east station platform;
  - Configuring the vehicle waiting area as short-term parking; and
  - Providing dedicated access from this facility to Station Street.

Medium-term (2022-2026):

- Encourage YRT to consider enhancements to frequencies for routes that serve high concentrations of GO passengers to align with planned GO rail service levels;
- Encourage York Region and the Township to consider expediting the planned implementation of cycling infrastructure along Keele Street and King Road;
- Consider ride-sourcing partnerships to provide options for Park 'n' Ride customers to connect to this station;
- Consider providing information about available peer-to-peer parking options around this station to GO rail customers;
- As part of the planned redevelopment of the east station site, consider expanding parking by 850 spaces using a combination of surface and alternative parking solutions. If these solutions are not feasible, consider developing a conventional parking structure; and
- As part of the planned improvements to the east station site, consider installing bike shelters at the northern end of the main east GO station site to include covered bicycle parking and a bike repair stand.

As part of the Rail Expansion initiative, Metrolinx proposed to convert several rail corridors within the GO Transit network from diesel to electric propulsion, including the Barrie corridor from Parkdale Junction to Allandale GO Station. Metrolinx and Hydro One completed the Transit Project Assessment Process (TPAP) for the GO Rail Network Electrification project in October 2017, filing the Notice to Proceed in December 2017. The increased services and electrification of the corridor is expected to be implemented by 2025.

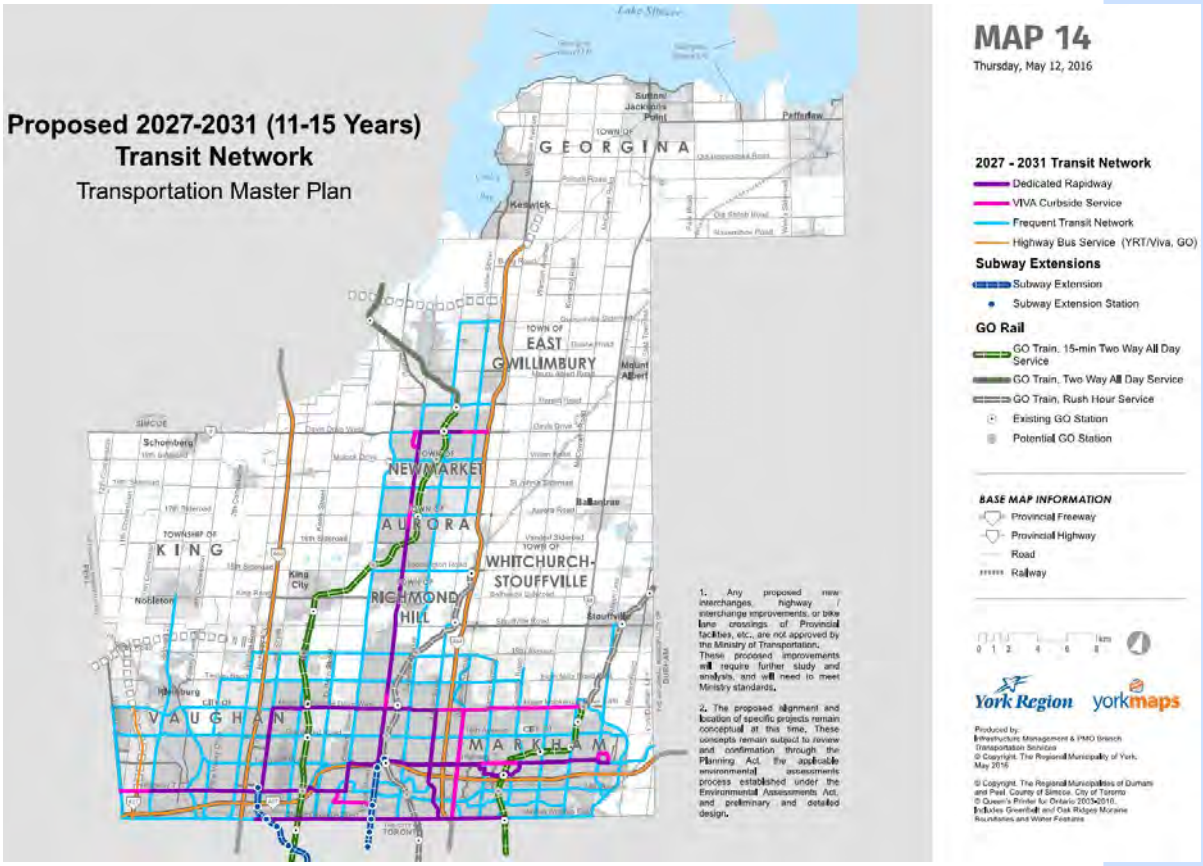
6.2.2 YORK REGION

The Region's 2016 TMP includes several infrastructure improvements in King and the surrounding municipalities that will help King increase its transit ridership. The proposed network builds on investment in the Toronto-York Spadina Subway Extension, the first wave of vivaNext rapidways, Regional Express Rail and YRT/Viva Frequent Transit Network service expansion. The key recommended improvements include:

- → vivaNext bus rapid transit (BRT) along Yonge Street between the Richmond Hill Centre Terminal to Gamble Road is currently under construction with the expected completion in December 2020. The BRT is recommended to be extended north to Davis Drive in Newmarket by 2031 with the addition of seven new viva stations along the seven-kilometre stretch;
- → Frequent transit along Highway 27 (between Steeles Avenue East and King Road) and Bathurst Street (between Steeles Avenue East and Davis Drive West); and
- → Potential GO station at 15th Sideroad and Bathurst Street.

The proposed transit network up to 2031 for the entire Region is illustrated in **Figure 6-4**.

Figure 6-4: Proposed York Region Transit Network to 2031



Source: York Region 2016 Transportation Master Plan

In the 2016 TMP, the Region also identified "Creating a World Class Transit System" to be one of its five objectives by 2041. The Region seeks to meet this objective by creating a seamless interconnected system of subways, rapidways, a frequent transit network and other services to meet the varying demands throughout the Region. Several Ridership Growth Strategies were identified to enhance transit performance and ridership, including:

- A Low Demand Transit Strategy;
- Integration with GO Transit;
- A Frequent Transit Network; and
- Regional Integration.

LOW DEMAND TRANSIT STRATEGY

Building on YRT's new Mobility On-Request service, of which King is currently participating in, the Low Demand Transit Strategy will define boundaries between low-demand and high-demand areas in each municipality. The Strategy will offer a combination of services in low-demand areas (areas defined as rural, suburban or urban areas were low levels of transit demand exist) such as conventional services, Mobility On-Request routes and zones, and Mobility Plus services. It will also explore innovative solutions such as sharing economy technology, partnerships, and enhanced information and communications channels to promote travel options. YRT is planning a review of the Mobility On-Request services in the Township of King, including consideration for integration and connections with YRT and GO Rail services in the area.

INTEGRATION WITH GO TRANSIT

As discussed in **Section 6.2.1**, the King City GO Station is planned to have15-minute two-way service during the weekday rush hours, mid-day, and evening periods by 2026 as part of the GO Rail Expansion program by Metrolinx. By 2026, the Richmond Hill GO service is also expected to increase to 15-minute service in the peak direction between Richmond Hill and Union Station during the morning and afternoon/evening periods. To ensure an integrated and seamless regional transit network, YRT/Viva will coordinate its services to align with the service improvements and new GO schedules.

With the significant changes to GO infrastructure and services as part of the Rail Expansion program, the Region has initiated a Transit Optimization Program (TOP) intended to facilitate collaboration between the Region, Metrolinx and local municipalities with respect to the development, implementation and operation of the Rail Expansion. The TOP initiative will address coordination efforts for road/rail grade separations and level crossings, existing and new GO Stations, YRT/Viva service increases to support Rail Expansion and fare integration. The TOP also creates a framework for the Region, Metrolinx and Transport Canada to work to address and mitigate impacts due to whistles blowing as the Rail Expansion program is implemented and GO rail service increases.

Currently, GO Transit provides highway bus service on serval 400 Series highways, including Highway 400, 404 and 407, which are primarily designed to provide services in place of GO trains during off-peak periods. As discussed in **Section 4.2.1**, MTO plans to widen Highway 400 between Major Mackenzie Drive and King Road from six to eight lanes by 2020 to accommodate two HOV lanes; the widening of Highway 400 will continue to Canal Road beyond 2020. The introduction of HOV lanes on Highway 400 will significantly improve the viability and attractiveness of highway bus services. In the interim conditions, the Region proposed allowing buses to travel along the paved shoulders on Highway 400 and 404 to avoid traffic congestion; the Region is working with MTO to explore the feasibility of this proposed interim solution. The Region's TMP also recommends YRT/Viva utilizing the highways to enhance bus services and connectivity where feasible.

FREQUENT TRANSIT NETWORK

The TMP proposed the development of a Frequent Transit Network (FTN) specifically in urban areas within the Region. Positioned in key corridors, FTN routes are expected to offer reliable services that are too frequent to require a schedule connecting the BRT, subway stations and future GO stations. FTN routes would continue to be complemented by other YRT Local, Express, Shuttle and Community Bus services. Over the next five years, YRT/Viva will transition existing services into the FTN, ultimately offering service frequencies of 15 minutes or less throughout the day, seven days a week. According to the York Region Transit Network map illustrated in **Figure 6-4**, Highway 27 from Steeles Avenue West to King Road is planned to be part of the FTN by 2031.

REGIONAL INTEGRATION

Road networks within the GTHA are seamlessly connected without barriers between municipal jurisdictions; the demand for seamless transit connectivity between York Region and the rest of the GTHA is only increasing, most notably to and from the City of Toronto, and Peel and Durham Regions. York Region is actively working with Metrolinx on their fare integration strategy to provide cohesive route and fare structures to facilitate cross-border travel throughout the GTHA.

OVERALL ACTION ITEMS

From these Ridership Growth Strategies, several actions were identified and presented in the TMP to support the creation of a world class transit system in York Region. The ones most relevant to King include:

- Implementing a Low Demand Transit Strategy that clarifies and improves the family of services offered by YRT in low demand areas;
- Through the established TOP, work with Metrolinx/GO Transit to ensure the successful introduction and integration of the Rail Expansion improvements;
- Restructure existing YRT/Viva services to improve access to GO Transit stations, supporting GO Transit's all-day schedules and the Rail Expansion program;
- Work with Metrolinx/GO Transit to coordinate the delivery of highway bus services while recognizing these services have potentially lower cost recovery ratios than conventional YRT services; and
- Develop service and fare integration agreements with Brampton Transit (Region of Peel), Durham Region Transit (Region of Durham) and Metrolinx.

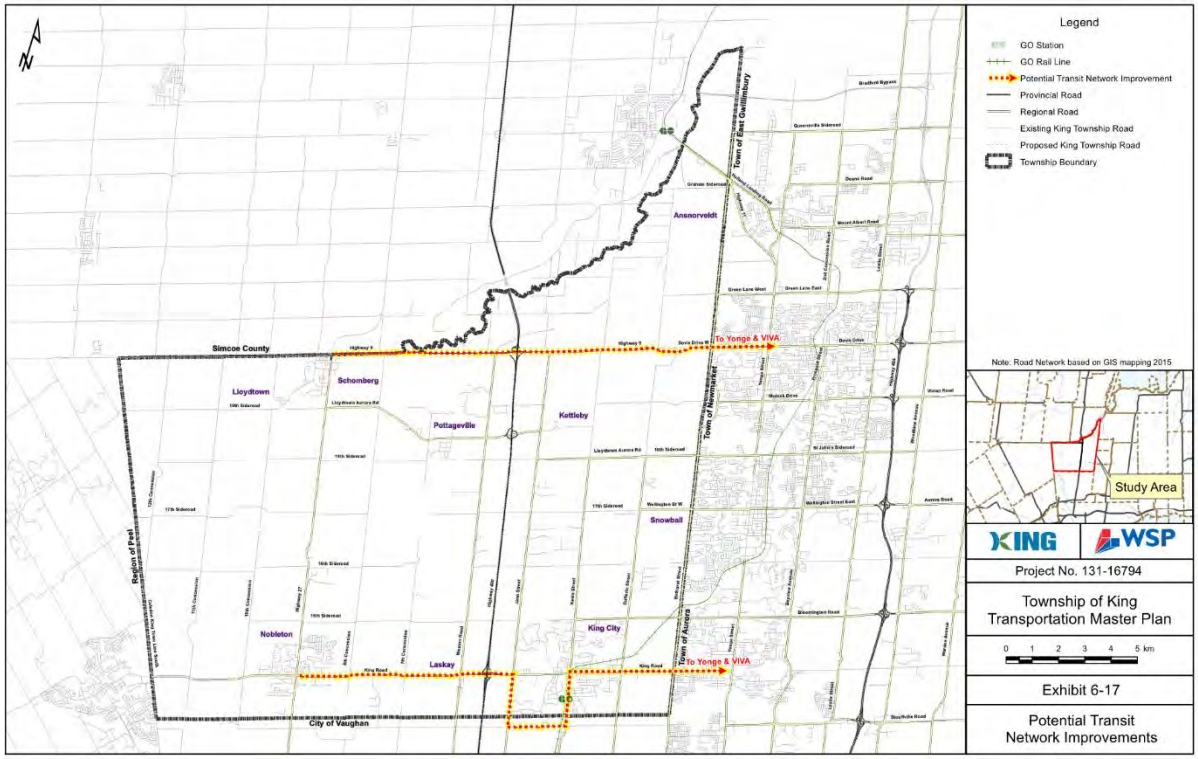
6.2.3 YORK REGION TRANSIT

In its 2016-2021 Strategic Plan, YRT has identified "Connection with GO Transit" to be one of its key strategies in achieving its objective of Service Delivery. To support GO Transit's Rail Expansion program, existing services will be restructured to provide new services and improve access to GO Transit. Over the next five years, YRT plans to improve regional mobility by providing routes and connections that align with GO Transit's schedules. Currently, there are no planned service improvement for King Township by 2021.

6.2.4 KING TOWNSHIP

To capitalize on the Region's investment in rapid transit, the 2015 TMP recommended for the Township to continue working with YRT to develop direct bus routes that provide connectivity between the three villages and the Yonge Street BRT and King GO Station. High-level concepts were developed for these routes as seen in **Figure 6-5**. Further examination and refinement will be necessary through continued discussions with YRT.

Figure 6-5: Proposed Transit Network Improvements in the 2015 King TMP



Source: Township of King 2015 Transportation Master Plan

6.3 GAPS

Both York Region and Metrolinx have invested and are planning to invest significant resources into various infrastructure and service improvements within King and surrounding municipalities to enhance transit mode options. With the arrival of Rail Expansion project by Metrolinx on the Barrie Line and full BRT on the Yonge Street corridor, the Township will have more access to various transit options throughout the day. Additionally, the York Region TMP includes a new GO station at 15th Sideroad and Bathurst Street intersection. The existing and previously proposed transit network improvements within King are illustrated in **Figure 6-6**.

These proposed improvements to the transit network within King will result in the following network or service gaps:

- Currently, the Township has one transit service that connects all three urban villages and the existing King GO station, the MOR King Local; this service only operates on weekdays during the morning and afternoon rush hours;
- With the increased frequency of GO trains from 30 minutes to 15 minutes throughout the day, this will result in higher traffic congestion at the at-grade railway crossing on Dufferin Street due to the increase in train traffic; and
- There will be an increase in whistles blowing as the Rail Expansion program is implemented and train service is increased.

The next section will provide some recommendations to address the identified gaps.

FIGURE 6-6
EXISTING AND PLANNED TRANSIT NETWORK IMPROVEMENTS TO 2031

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN

- Carpool and Commuter Parking Lot
- Municipal / Community Hall
- Recreation / Arena / Community Centre
- School
- Waterbody
- Park / Open Space
- Current Proposed Development Application

Existing Transit Network

GO Transit

- GO Train Station
- GO Bus Stop
- 63 King City / Toronto
- 66 East Gwillimbury / Newmarket / North York
- 68 Barrie / Newmarket

YRT

- 22 King City
- 32 Aurora South
- 88 Bathurst
- 96 Keele - Yonge
- Mobility On-Request King Local

Planned Transit Network Improvements

- Proposed GO Station
- GO Train Rail Line Improvements
- Frequent Transit Network
- Direct Bus Route

Road Network

- Provincial Highway / Freeway
- Regional Road
- Township Road (Approved or Constructed)
- Township Road (Linkage)

N

0 2.5 5 km

DRAFT

Produced by:
WSP

Sources:
Base Data: MNRF, Region of York & Township of King
Projection: UTM NAD83 Zone 17

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6.4 PROPOSED RECOMMENDATIONS

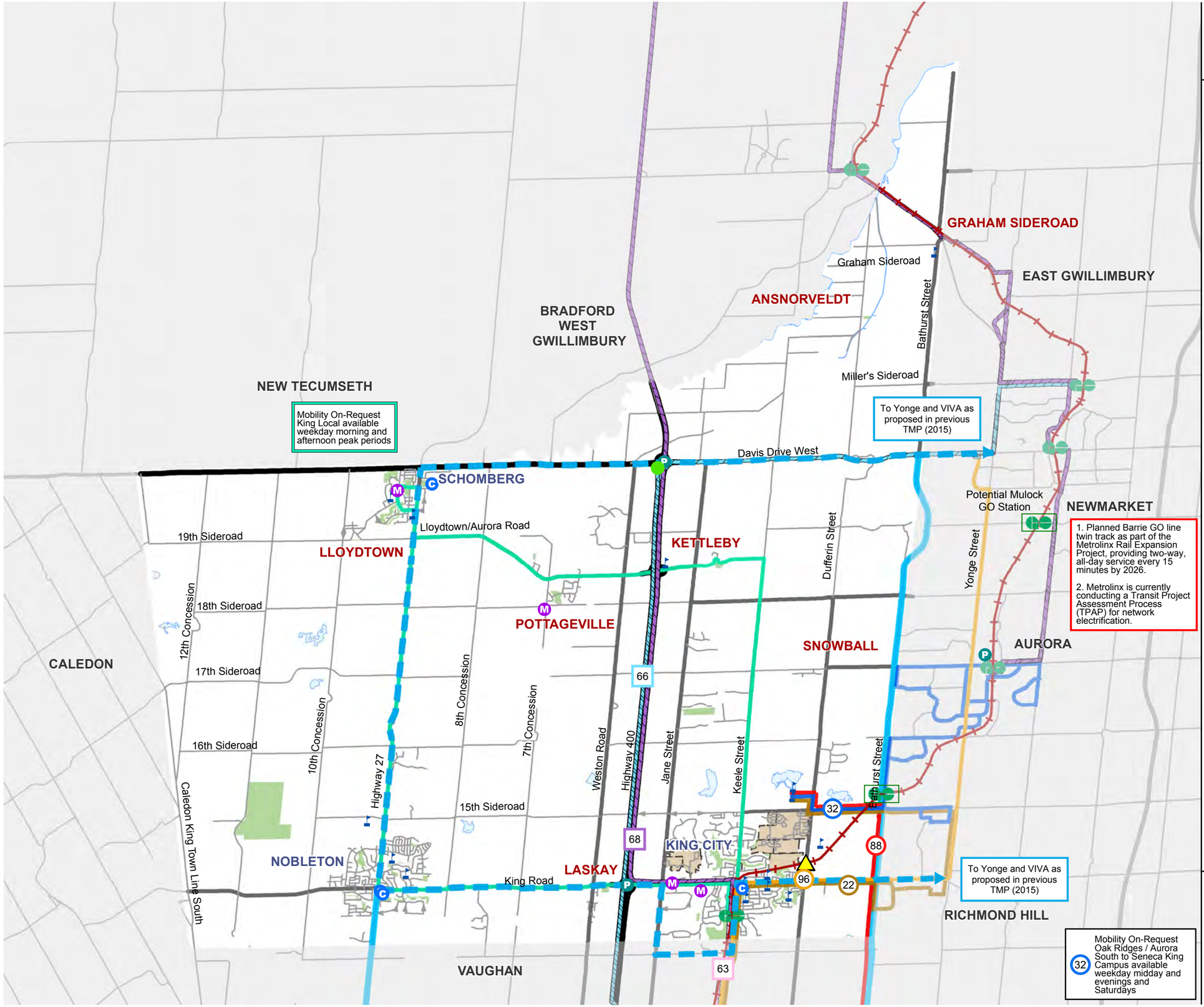
With the arrival of Rail Expansion program by Metrolinx on the Barrie Line and full BRT on the Yonge Street corridor, the following improvements are recommended to enhance the previously proposed transit network and services. The Township should:

1. Liaise with the Region and YRT to increase the service hours of the Mobility On-Request King Local to accommodate all day travel, seven days a week. If demand increases, King should advocate for the Mobility On-Request service to be converted into a fixed-route service;
2. Work with Metrolinx and the Region to explore the feasibility of converting the at-grade rail crossing at Dufferin Street to a grade-separated crossing;
3. As part of the TPAP process for the twinning of the Barrie rail line, Township staff has formally advised Metrolinx in writing the Township requires the necessary infrastructure for whistle cessation be included in the project. King staff will continue to meet and follow up with Metrolinx staff; and
4. Promote the provision of direct transit services along King Road, Highway 9 and Davis Drive West into the Region's Frequent Transit Network.

A review of the demand and available resources from YRT should be conducted to confirm the feasibility of these recommendations, which are illustrated in **Figure 6-7**.

FIGURE 6-7
RECOMMENDED TRANSIT NETWORK

TOWNSHIP OF KING 2020 TRANSPORTATION MASTER PLAN



- Carpool and Commuter Parking Lot
- Municipal / Community Hall
- Recreation / Arena / Community Centre
- School
- Waterbody
- Park / Open Space
- Current Proposed Development Application

Existing Transit Network

GO Transit

- GO Train Station
- GO Bus Stop
- 63 King City / Toronto
- 66 East Gwillimbury / Newmarket / North York
- 68 Barrie / Newmarket

YRT

- 22 King City
- 32 Aurora South
- 88 Bathurst
- 96 Keele - Yonge
- Mobility On-Request King Local

Planned Transit Network Improvements

- Proposed GO Station
- GO Train Rail Line Improvements
- Frequent Transit Network

TMP Proposed Transit Network Improvements

- Proposed Grade Separation
- Proposed Frequent Transit Network

Road Network

- Provincial Highway / Freeway
- Regional Road
- Township Road (Approved or Constructed)
- Township Road (Linkage)

N

0 2.5 5 km

KING

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7 COSTING

This section of the 2020 TMP provides high-level cost estimates for the proposed network improvements including new multi-modal network connections. The costs will require confirmation as the projects approach implementation through assessment and detailed design of the facilities. Projects costings are outlined as short-term, medium-term and long-term based on when the future development is recommended for implementation.

A detailed overview of the indicative capital costs of the TMP projects is provided in **Appendix D**.

7.1 ROADS

The projects that are costed as part of this TMP only include the construction of new Township-owned roads. It is assumed that the costs for all new roads within the future developments will be collected as part of the developers' applications; thus, these roads are not costed. Given that the Township has identified all gravel roads to be eventually paved, per Council direction, the Township has budgeted separately for these improvements and are also not costed in the 2020 TMP.

The estimated capital costs of the new Township roadway construction projects are evaluated at approximately $650,000 (2019 dollars) based on a preliminary assessment of the transportation infrastructure requirements identified in this plan. The costs presented are in the 2019 dollars and include 10% construction contingency, 10% soft cost and 1.67% HST. It should be noted that the costs presented are Class D estimates and thus may vary significantly based on item quantities. The costs are for functional design purposes only and do not include additional costs that may result from environmental concerns and/or land acquisition.

7.2 ACTIVE TRANSPORTATION

The estimated cost to implement the proposed active transportation network has been developed to help inform future budgets and decision making. The capital costing information is based on a set of unit prices that:

- Do not include the cost of property acquisitions, signal modifications, utility relocations, major roadside draining works, or costs associated with site-specific projects such as bridges, railway crossings, retaining walls, and stairways, unless otherwise noted;
- Assume typical environmental conditions and topography; and
- Do not include applicable taxes and permit fees – which are considered additional.

The unit prices and assumptions are presented in **Table 7-1.** Using the unit costs, preliminary capital costs were calculated. **Table 7-2** summarizes the estimated costs for routes located on roads and lands under the Township of King, York Region and other jurisdictions. Reference should be made to York Region's TMP – Background Report D (Pedestrian and Cycling Plan Development Report) for details on routes located on roads and lands owned by the Region.

Table 7-1: Unit Cost Assumptions for Proposed Active Transportation Facilities

Facility Types	Unit Price per KM	Unit Price Assumptions
Off-Road Trail	$350,000	3.0m wide hard surface pathway (asphalt). Price depends of scale / complexity of project.
In-Boulevard Pathway	$325,000	3.0m wide hard surface pathway (asphalt) within road right of way (no utility relocations). Price depends of scale / complexity of project and if existing sidewalk is being removed (crushing of existing sidewalk and compacting for trail base).
Bike Lane	$53,000	Conventional 1.5m-1.8m bike lane by adding markings and signs. Price for both sides of the road, includes signs, stencils and edge line.
Paved Shoulder	$150,000	1.5 metre paved shoulder on both sides of the road. Assumes cycling project pays for additional granular base, asphalt and painted line. Price may vary from $100,000 to $200,000 depending on work needed to improve platform .
Signed Route	$1,200	Price for both sides of the road, assumes one sign a minimum of every 500 metres in the direction of travel. Price assumes that signs will be mounted on an existing post.
Sidewalk	$300,000	Price for 1.8m concrete sidewalk. Includes site preparation, select utility relocation, minor drainage modifications / traffic control.

The total estimated capital cost, provided in **Table 7-2**, to implement the active transportation network is approximately $53 million. This includes the cost for on and off-road routes that are located on roads and lands under the jurisdiction of the Township, Region and other agencies.

Table 7-2: Estimated Capital Costs for Proposed Active Transportation Facilities

Facility Types	Unit Price per KM	Township		Region		Other Jurisdictions		Total
		Km	Cost	Km	Cost	Km	Cost	
Off-Road Trail	$350,000	44.7	$15,660,000	0	$0	44.7	$15,660,000	**$31,310,000**
In-Boulevard Pathway	$325,000	12.7	$4,120,000	0	$0	0	$0	**$4,120,000**
Bike Lane	$53,000	0	$0	3.2	$170,000	0	$0	**$170,000**
Paved Shoulder	$150,000	17.0	$2,550,000	55.8	$8,370,000	0	$0	**$10,920,000**
Signed Route	$1,200	54.8	$70,000	8.9	$20,000	0	$0	**$80,000**
Sidewalk	$300,000	21.5	$6,460,000	0	$0	0	$0	**$6,460,000**
Total	-	**150.7**	**$28,860,000**	**67.9**	**$8,560,000**	**44.7**	**$15,660,000**	**$53,060,000**

For off-road routes, it has been assumed that 50% of the capital costs would fall under the Township's jurisdiction and the remaining 50% of the capital costs would fall under the jurisdiction of other agencies. It is recognized that the proposed off-road trails are located on lands that are owned by several agencies including the Township, York Region, Conservation Authorities (Toronto Region Conservation Authority and Lake Simcoe Region Conservation Authority) and private land-owners. For example, a significant portion of the Oak Ridges Trail is owned by private land-owners with easements for the trail.

It is recommended that Township staff continue working with it partners to guide the future planning and implementation of all routes that form the active transportation network. In addition, Township staff are encouraged to reference existing resources (such as the TRCA's Trails Strategy, 2019) to inform future decision-making regarding costing and partnerships.

This information is not intended to be prescriptive and should only be used by staff as a starting point to inform future decision making. It is recommended that future studies be undertaken to confirm specific details / facilities to better inform future investments and prioritization of projects.

8 SUMMARY OF RECOMMENDATIONS

The 2020 TMP contains important recommendations throughout several sections that include physical infrastructure projects, new services or programs, and additional studies to enhance the Township's multi-modal transportation network and make the Township more resilient to changing travel trends. However, not all recommendations are required immediately or at the same time. Based on population and employment forecasts and to establish a feasible timeline that can be achieved, the following timeframes have been set for the proposed improvements:

- Short-term (generally the next two years);
- Medium-term (to the year 2026); and
- Long-term (to the year 2031).

To ensure efficiency, a road that is scheduled for road and active transportation improvements should have all improvements constructed at one time – this would be more cost effective than to build an active transportation improvement only to have to go back shortly thereafter and construct a road improvement. This section collects all the recommendations in one place and groups them into the above noted timeframes.

8.1 SHORT-TERM (GENERALLY NEXT FEW YEARS TO 2022)

ROADS

1. Establish a rational road classification to guide future planning and capital works, as provided in **Figure 4-15** to **Figure 4-18**;
2. Update the Township's Official Plan to reflect the right-of-way needs and ensure that sufficient property is available to accommodate roadway components as per the Township's design standards;
3. Conduct studies to assess the potential impacts of the GTA West Corridor on the villages of Nobleton and King City. The Township should also consider working with the Region and neighbouring municipalities to assess any land use impacts and implement land use policies to mitigate any potential impacts;
4. Commence dialogue with York Region regarding the uploading of roads in the short and medium term in accordance with York Region's policy, and obtain Council's approval, as may be required; and
5. Liaise with York Region to better understand the timing to commence the 15th Sideroad Environmental Assessment in King City, west of Keele Street.
6. Update the functional design and parking capacity report for the King Road and Keele Street intersection and move towards implementation of recommendations.

ACTIVE TRANSPORTATION

7. Establish a terms of reference / scope of work for the development of an Active Transportation Master Plan, which will include an Implementation Plan to prioritize and phase the recommended network;
8. Work with Metrolinx and York Region to improve opportunities for active transportation users on Keele Street near the King GO Station;

9. Prioritize for implementation and maintenance walkable pathways to key destinations such as Major Transit Station Areas (MTSA), community centres, schools and other facilities;
10. Work closely with York Region on the implementation of new Regional Road pedestrian crossings at identified locations within the urban areas of King City, Nobleton and Schomberg to improve pedestrian and cyclist safety and mobility;
11. Utilize web mapping services, to advertise active transportation routes; and
12. Work with Smart Commute and York Region on behaviour change programs to encourage active transportation and transit to replace drive-alone car trips during peak periods, such as getting to and from the King GO Station.

TRANSIT

13. Liaise with York Region and YRT to increase the service hours of the Mobility On-Request King Local to accommodate all day travel, seven days a week. If demand increases, King should advocate for the Mobility On-Request service to be converted into a fixed-route service.

8.2 MEDIUM-TERM (GENERALLY BY 2026)

ROADS

1. Work with the Region to consider development of the proposed goods movement routes identified in **Figure 4-28**.

ACTIVE TRANSPORTATION

2. Partner with York Region to add signage for the York Region Cycling Tour Routes within King for economic and tourism development;
3. When roads are next scheduled for reconstruction, rehabilitation or resurfacing, where possible, widen roads with sufficient road base width to include up to two-metre paved shoulder and/or cycling facilities; and
4. Understand full lifecycle costs of new infrastructure to support long-term sustainability of the network through an asset management plan.

TRANSIT

5. As part of the TPAP process for the twinning of the Barrie rail line, Township staff has formally advised Metrolinx in writing the Township requires the necessary infrastructure for whistle cessation be included in the project. King staff will continue to meet and follow up with Metrolinx staff; and
6. Promote the provision of direct transit services along King Road, Highway 9 and Davis Drive West into the Region's Frequent Transit Network.

8.3 LONG-TERM (GENERALLY BY 2031)

ROADS

1. Work with York Region to investigate the feasibility and impacts of extending and widening 15th Sideroad between Highway 400 and Bathurst Street.

ACTIVE TRANSPORTATION

2. Consider establishing "cycling loops" within King City, Nobleton and Schomberg, and branding these loops with signage to direct people to trails, parks, community centres,

attractions and other local amenities to generate interest in cycling for recreation, commuting, and tourism.

TRANSIT

3. Work with Metrolinx and the Region to explore the feasibility of converting the at-grade rail crossing at Dufferin Street to a grade-separated crossing.

8.4 ADDITIONAL STUDIES

While this TMP contains several physical and service improvements, these should be complemented with a set of guiding policies. Policies are the "legs" on which the "table top" of a transportation network stands. We recommend developing the following policies to help implement the active transportation, transit, goods movement and road network recommendations summarized in the sections above:

- **Complete Streets** is the concept of designing the transportation network for all modes of transportation and all transportation system users. It is an umbrella policy that guides the remaining policies as well as the planning of the physical transportation network. The Complete Streets concept refers to the transportation network as a system – not every street is designed for every mode. For instance, a local road typically does not have a dedicated cycling facility and is not used as a truck route. The network must be complete in providing alternatives or parallel facilities that are "complete".
- **Traffic Calming** is a series of design, engineering, educational, and/or enforcement measures implemented to reduce the impacts of high motor-vehicle speeds and traffic volumes on local and collector streets. Traffic calming improves the liveability of neighbourhoods for all road users. Measures include physical interventions such as curb extensions or speed humps, and installation of signs, as well as community road watch programs, or police enforcement. Complementary measures also include the application of Complete Streets principles in facility and community design phases, enhancing street conditions for all users. A Traffic Calming policy will provide a framework for commencing, analyzing, reviewing, implementing, monitoring and evaluating traffic calming initiatives for local and collector residential neighbourhood streets. It will also provide a toolbox with practical recommendations.
- **Transportation Demand Management (TDM)** includes policies, programs and services that seek to influence the way people travel and commute to reduce single-occupant vehicle trips, lower carbon emissions, alleviate traffic congestion, and decrease health-related problems due to sedentary lifestyles. These challenges are all tied to a society's travel patterns, and they play an important role in the quality of life and productivity of the community. Through a formal TDM strategy, a Municipality can defer the need for significant capital investments in new road infrastructure, and maximize the use of existing transportation facilities and services. This can be achieved by providing actions, incentives, and policies to encourage walking, cycling, riding transit, and carpooling for utilitarian trips. These are commonly focused on prioritizing moving people (as opposed to cars) with guiding principles to enhance the multi-modality, efficiency, safety, and accessibility of its transportation network.
- **Future Ready** is about unlocking future opportunities by actively identifying and monitoring key trends in the present. A focus on Future Ready now can help the Township become more resilient to change in the coming decades with respect to climate change, technology and travel patterns, and be better positioned to achieve its vision. Technology-driven increases in automation, connectivity and information sharing have enabled more efficient use of resources making many aspects of our life easier and more convenient. From real-time tracking of transit service schedules, online multi-modal trip planners, integrating Uber or taxi services within a transit system, and contactless payment systems such as PRESTO, utilizing

various modes of transportation has become increasingly more effortless. In a data-driven world with an increasing emphasis on connectivity, technology improvements are consistently required to ensure safety and equity. The Township should explore some of the current and emerging trends at the intersection of technology, mobility, and society to best identify the pulse of the sector and better align its resources for the future.

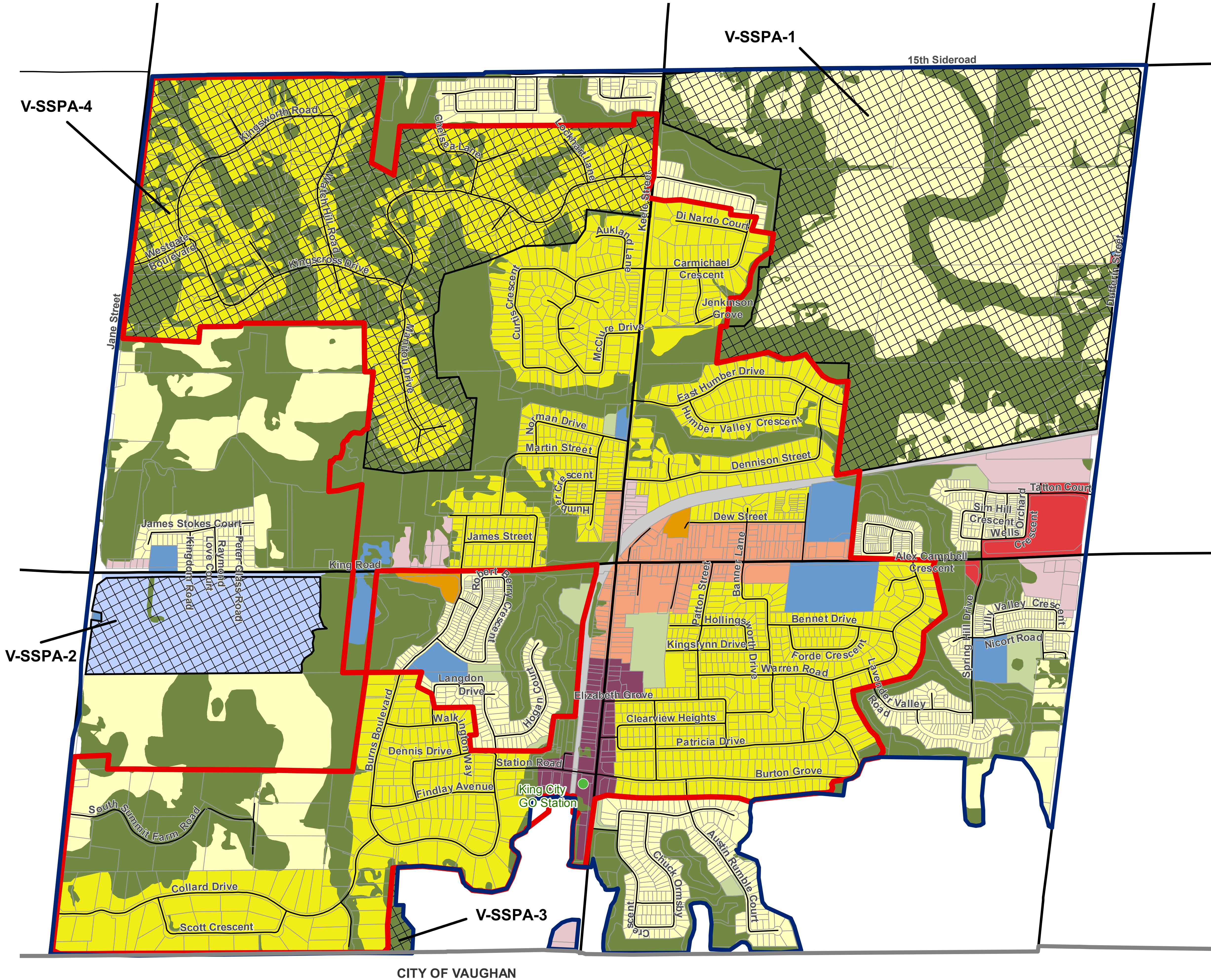
KING TOWNSHIP – 2020 TRANSPORTATION MASTER PLAN

THE WAY FORWARD

MARCH 2020

Appendix A

TOWNSHIP OF KING OFFICIAL PLAN – LAND-USE SCHEDULES



V-SSPA-1
V-SSPA-2
V-SSPA-3
V-SSPA-4
15th Sideroad
Jane Street
Keele Street
Dufferin Street
King Road
CITY OF VAUGHAN
Kingsworth Road
Westgate Boulevard
Kingscross Drive
Warren Hill Road
Manitou Drive
Chelsea Lane
Lockhart Lane
Aukland Lane
Curtis Crescent
McClure Drive
Di Nardo Court
Carmichael Crescent
Jenkinson Grove
East Humber Drive
Humber Valley Crescent
Dennison Street
Norman Drive
Martin Street
Humber Crescent
James Street
James Stokes Court
Kingdon Road
Raymond Love Court
Peter Glass Road
Dew Street
Banner Lane
Patton Street
Hollingsworth Drive
Kingslynn Drive
Bennet Drive
Forde Crescent
Warren Road
Lavender Valley Road
Alex Campbell Crescent
Tatton Court
Sim Hill Crescent
Wells Orchard Crescent
Valley Crescent
Nicort Road
Spring Hill Drive
Robert Berry Crescent
Langdon Drive
Hogan Court
Walkington Way
Dennis Drive
Burns Boulevard
Findlay Avenue
Station Road
Elizabeth Grove
Clearview Heights
Patricia Drive
Burton Grove
King City GO Station
Chuck Ormsby Crescent
Austin Rumble Court
South Summit Farm Road
Collard Drive
Scott Crescent

SCHEDULE 'D1'
VILLAGE OF KING CITY
LAND USE DESIGNATIONS

TOWNSHIP OF KING OFFICIAL PLAN

- Township of King Boundary
- Village Boundary
- Built Boundary
- Site Specific Policy Area (SSPA)
- King City GO Station

Land Use Designations

- Village Core
- Established Neighbourhood
- Neighbourhood
- Medium Density Residential
- Mixed Use
- Commercial
- Employment
- Transit Station Area
- Institutional
- Parks and Open Space
- Utility
- Natural Heritage System

N

0 200 400 800 m

KING

wsp

Produced by:
WSP

Sources:
Base Data: MNRF, York Region & Township of King
Projection: UTM NAD83 Zone 17

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Adopted by Council – September 23, 2019

SCHEDULE 'D2'
VILLAGE OF NOBLETON
LAND USE DESIGNATIONS

TOWNSHIP OF KING OFFICIAL PLAN

- Township of King Boundary
- Village Boundary
- Nobleton Village Reserve Boundary
- Built Boundary

Land Use Designations

- Village Core
- Established Neighbourhood
- Neighbourhood
- Medium Density Residential
- Mixed Use
- Commercial
- Employment
- Institutional
- Open Space and Parks
- Utility
- Natural Heritage System
- Nobleton Village Reserve

N

0 400 800 m

KING

wsp

Produced by:
WSP

Sources:
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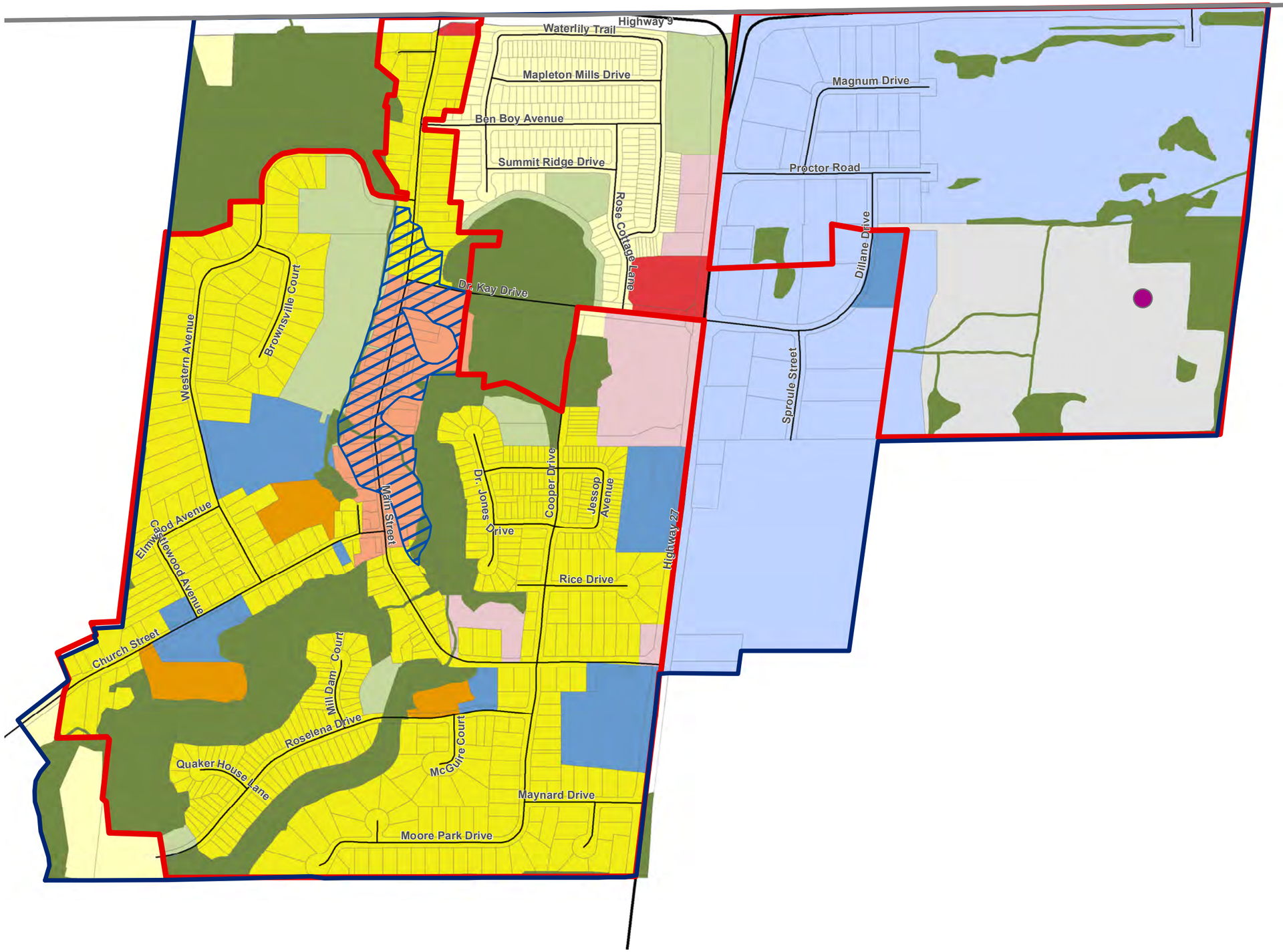
Adopted by Council – September 23, 2019

15th Sideroad
10th Concession
8th Concession
Concession Road 10
Concession Road 8
Highway 27
Wedgeport Court
Fairmont Ridge Trail
Paradise Valley Trail
Coastal Trail
Samson Trail
Bighorn Trail
Anderson Cove Trail
Bluff Trail
Skyline Trail
Parkheights Trail
Aspen King Court
Goodfellow Crescent
Hill Farm Road
Westbrooke Boulevard
Northcott Way
Hollywood Crescent
Greenside Drive
Elizabeth Drive
Wellar Avenue
Lynwood Crescent
Russell Snider Drive
Macgaggart Drive
Holden Drive
Robb Drive
McCutcheon Avenue
Sheardown Drive
Simon Henry Avenue
Hawman Avenue
King Road
Wilkie Avenue
Robinson Road
Ellis Avenue
Janet Avenue
Gilbert Fuller Drive
Hawthorne Valley Road
Ballard Drive
Oliver Emerson Avenue
Larkin Avenue
Macmurchy Avenue
Munsie Drive
Hilda Road
Diana Drive
King Vaughan Road
CITY OF VAUGHAN

TOWN OF BRADFORD
WEST GWILLIMBURY



SCHEDULE 'D3'
VILLAGE OF SCHOMBERG
LAND USE DESIGNATIONS

TOWNSHIP OF KING OFFICIAL PLAN

- Township of King Boundary
- Village Boundary
- Built Boundary
- Special Policy Area (refer to Section 4.8.2)
- Schomberg Water Resource Recovery Facility

Land Use Designations

- Village Core
- Established Neighbourhood
- Neighbourhood
- Medium Density Residential
- Mixed Use
- Commercial
- Employment
- Institutional
- Parks and Open Space
- Utility
- Natural Heritage System

N

0 200 400 m

KING

WSP

Produced by:
WSP

Sources:
Base Data: MNRF, York Region & Township of King
Projection: UTM NAD83 Zone 17

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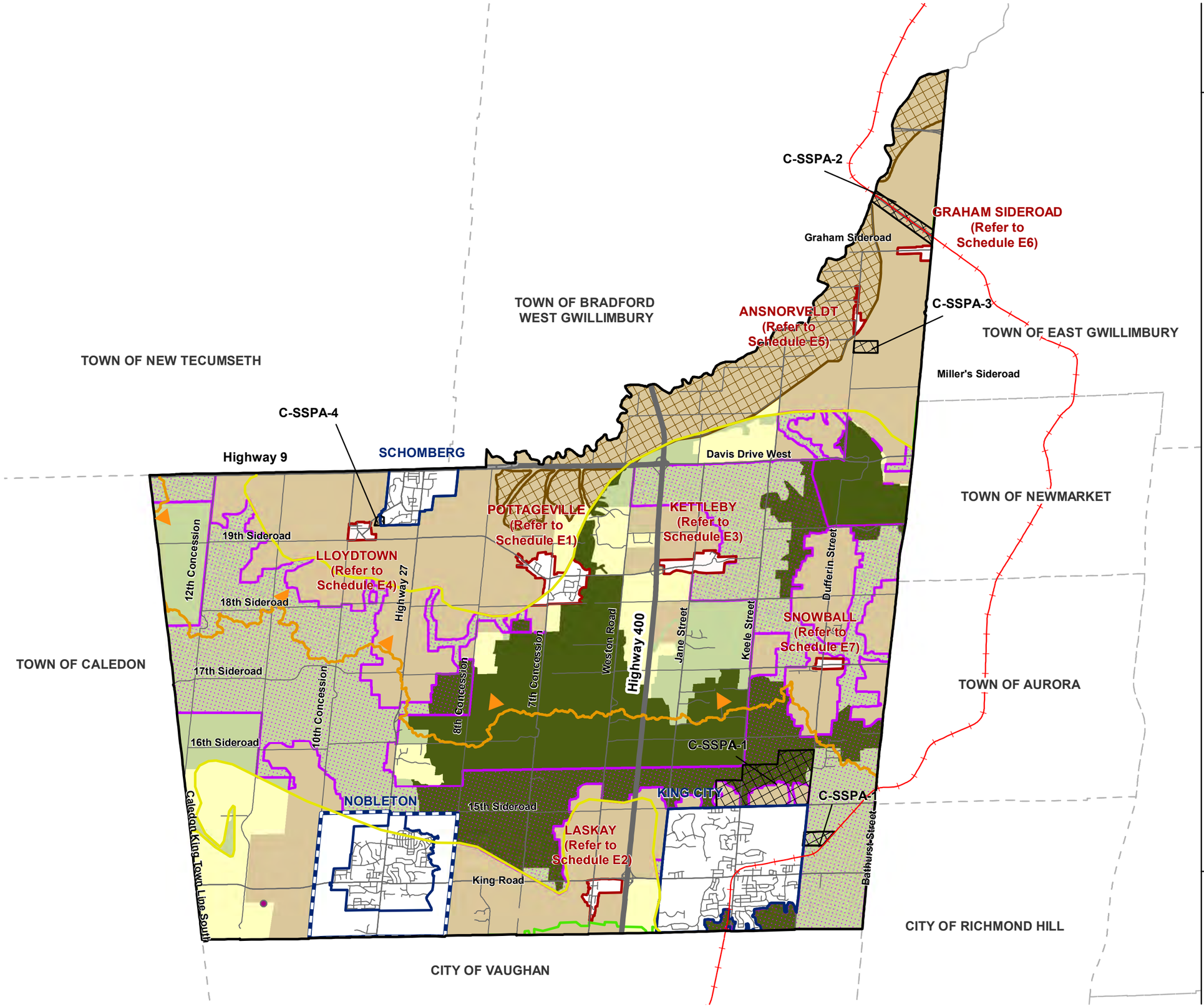
Adopted by Council – September 23, 2019

SCHEDULE 'E'
COUNTRYSIDE LAND USE DESIGNATIONS

TOWNSHIP OF KING OFFICIAL PLAN



- Township of King Boundary
- Village Boundary
- Nobleton Village Reserve Boundary
- Hamlet Boundary (refer to Schedules E1 – E7 for land use designations)
- Greenbelt Plan Area
- Oak Ridges Moraine Conservation Plan Area
- Area Subject to the Lake Simcoe Protection Plan
- GO Rail Line
- Site Specific Policy Area (SSPA)
- Holland Marsh Specialty Crop Area
- Prime Agricultural Area in the ORM Natural Core Areas and Natural Linkage Areas
- Nobleton Water Resource Recovery Facility

Land Use Designations

- Agricultural Area
- Rural Area
- Oak Ridges Moraine Natural Core Area
- Oak Ridges Moraine Natural Linkage Area

N

0 1 2 4 6 km

Produced by:
WSP

Sources:
Base Data: MNRF, York Region & Township of King
Projection: UTM NAD83 Zone 17

Adopted by Council – September 23, 2019

SCHEDULE 'E1'
HAMLET OF POTTAGEVILLE
LAND USE DESIGNATIONS

TOWNSHIP OF KING OFFICIAL PLAN

- Hamlet Boundary
- Oak Ridges Moraine Conservation Plan Area

Land Use Designations

- Hamlet Residential
- Hamlet Commercial
- Hamlet Rural Area
- Natural Heritage System

N

0 200 400 m

KING

wsp

Produced by:
WSP

Sources:
Base Data: MNRF, York Region & Township of King
Projection: UTM NAD83 Zone 17

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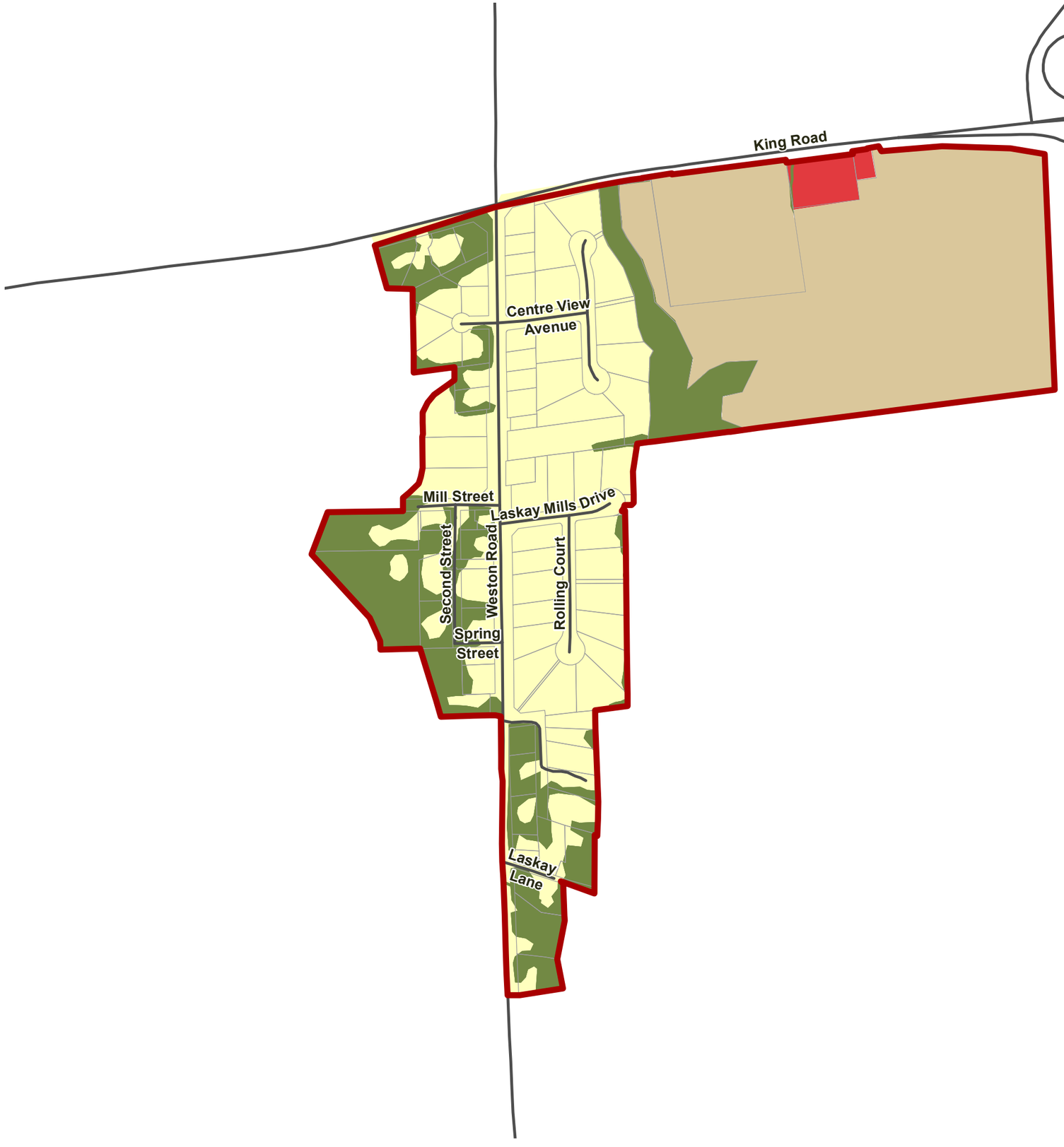
Adopted by Council – September 23, 2019

SCHEDULE 'E2'
HAMLET OF LASKAY
LAND USE DESIGNATIONS

TOWNSHIP OF KING
OFFICIAL PLAN



Hamlet Boundary

Land Use Designations

- Hamlet Residential
- Hamlet Commercial
- Hamlet Rural Area
- Natural Heritage System

N

0 200 400 m

KING

wsp

Produced by:
WSP

Sources:
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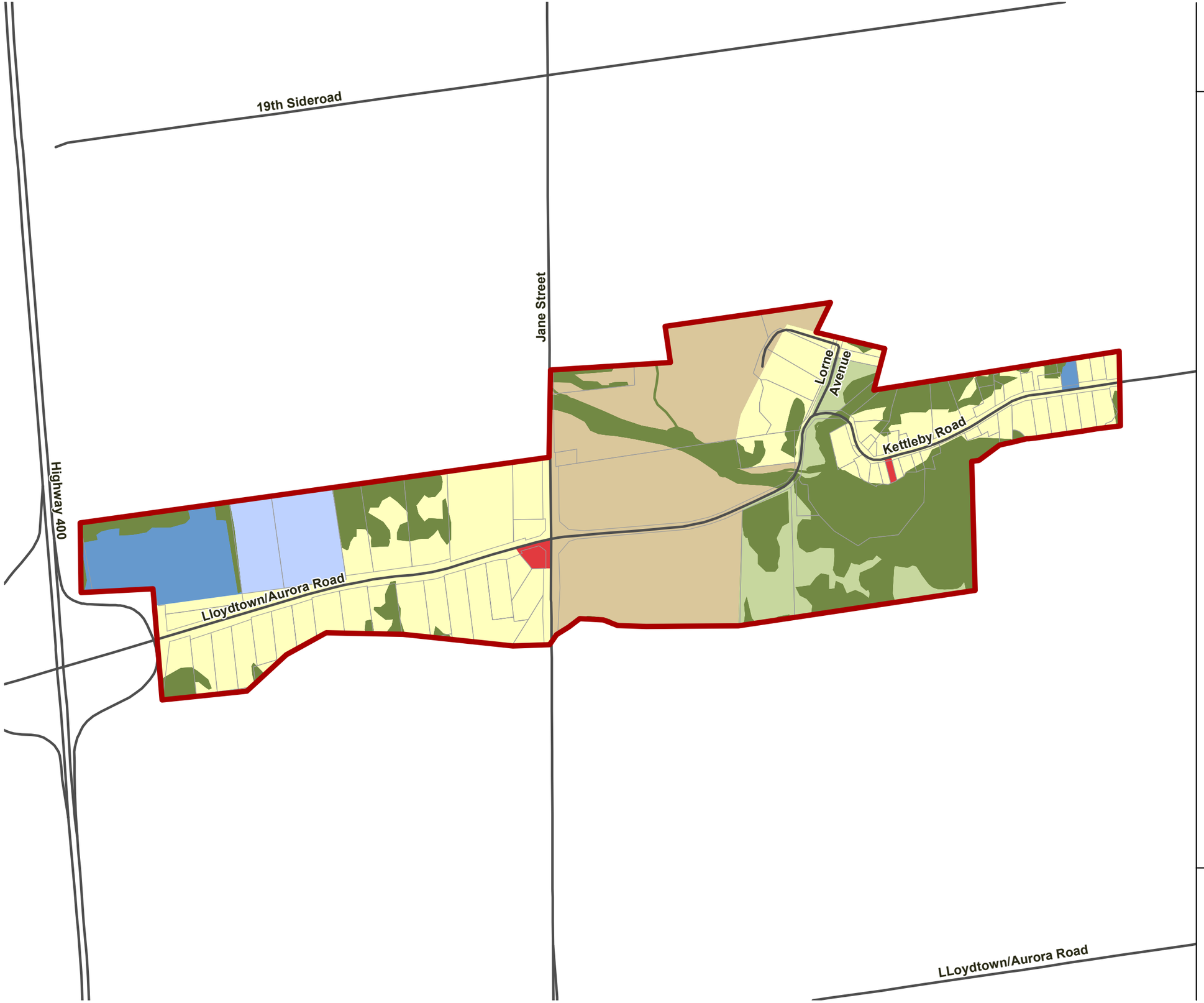
Adopted by Council – September 23, 2019

SCHEDULE 'E3'
HAMLET OF KETTLEBY
LAND USE DESIGNATIONS

TOWNSHIP OF KING
OFFICIAL PLAN



- Hamlet Boundary

Land Use Designations

- Hamlet Residential
- Hamlet Commercial
- Hamlet Institutional
- Hamlet Open Space
- Hamlet Employment
- Hamlet Rural Area
- Natural Heritage System

N

0 200 400 m

Produced by:
WSP

Sources:
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Projection: UTM NAD83 Zone 17

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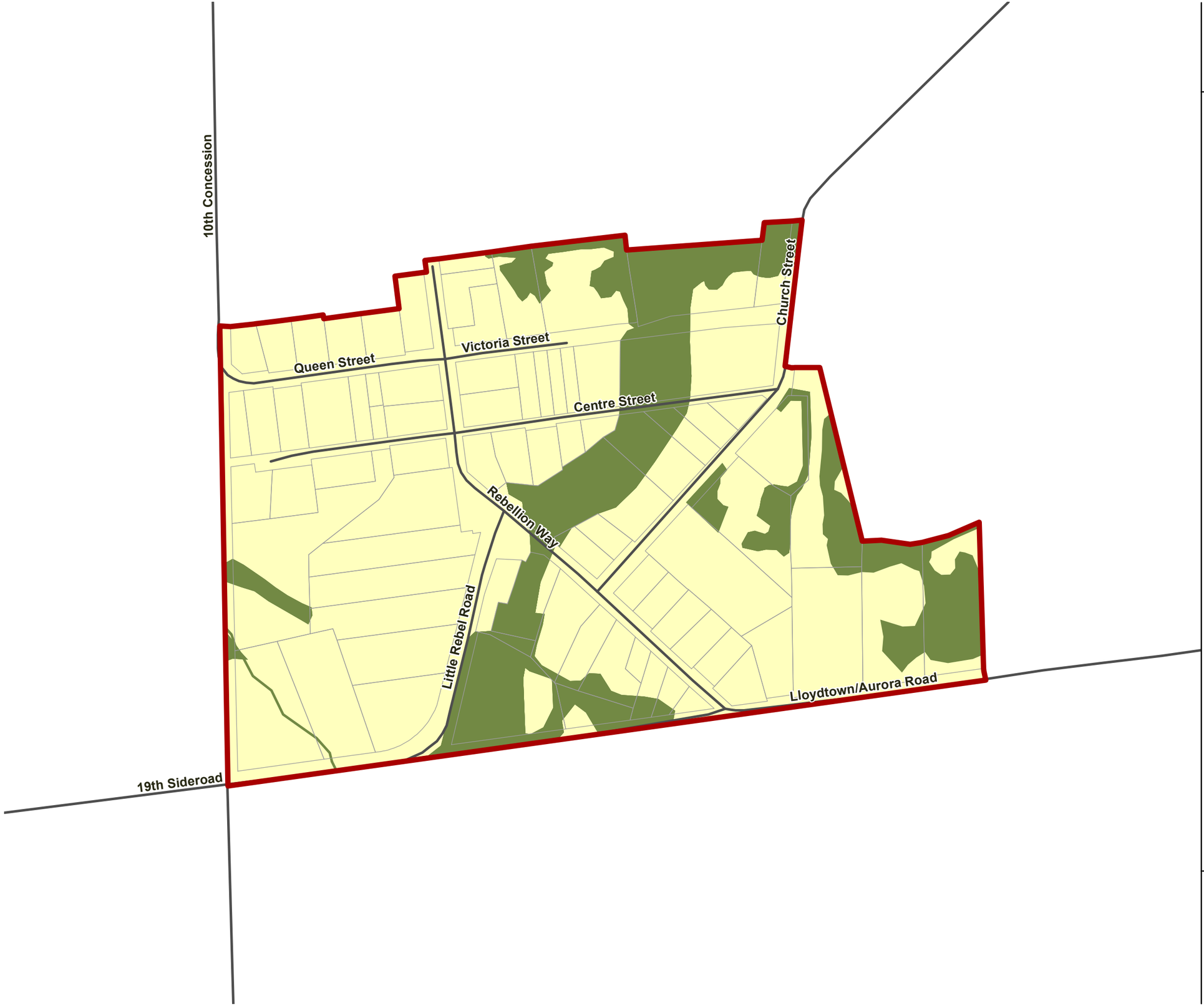
Adopted by Council – September 23, 2019

SCHEDULE 'E4'
HAMLET OF LLOYDTOWN
LAND USE DESIGNATIONS

TOWNSHIP OF KING
OFFICIAL PLAN



Hamlet Boundary

Land Use Designations

Hamlet Residential

Natural Heritage System

N

0 100 200 m

Produced by:
WSP

Sources:
Base Data: MNRF, York Region & Township of King
Projection: UTM NAD83 Zone 17

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Adopted by Council – September 23, 2019

SCHEDULE 'E5'
HAMLET OF ANSNORVELDT
LAND USE DESIGNATIONS

TOWNSHIP OF KING
OFFICIAL PLAN

Hamlet Boundary

Land Use Designations

- Hamlet Residential
- Hamlet Commercial
- Hamlet Institutional
- Hamlet Open Space
- Hamlet Employment
- Natural Heritage System

N

0 200 400 m

Produced by:
WSP

Sources:
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Projection: UTM NAD83 Zone 17

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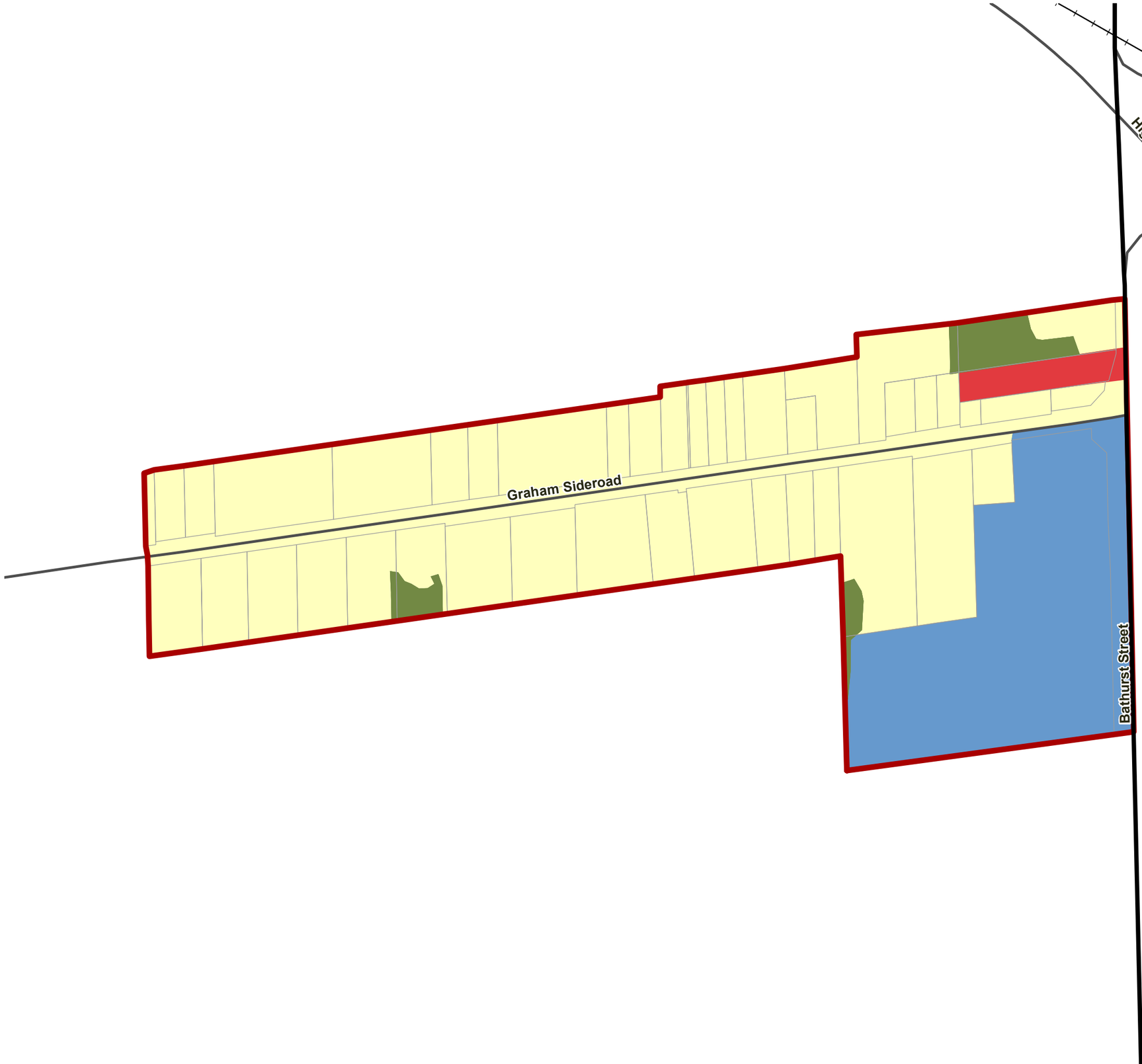
Adopted by Council – September 23, 2019

SCHEDULE 'E6'
HAMLET OF GRAHAM SIDEROAD
LAND USE DESIGNATIONS

TOWNSHIP OF KING OFFICIAL PLAN



- Township of King Boundary
- Hamlet Boundary
- GO Rail Line

Land Use Designations

- Hamlet Residential
- Hamlet Commercial
- Hamlet Institutional
- Natural Heritage System

N

0 100 200 m

Produced by:
WSP

Sources:
Base Data: MNRF, York Region & Township of King
Projection: UTM NAD83 Zone 17

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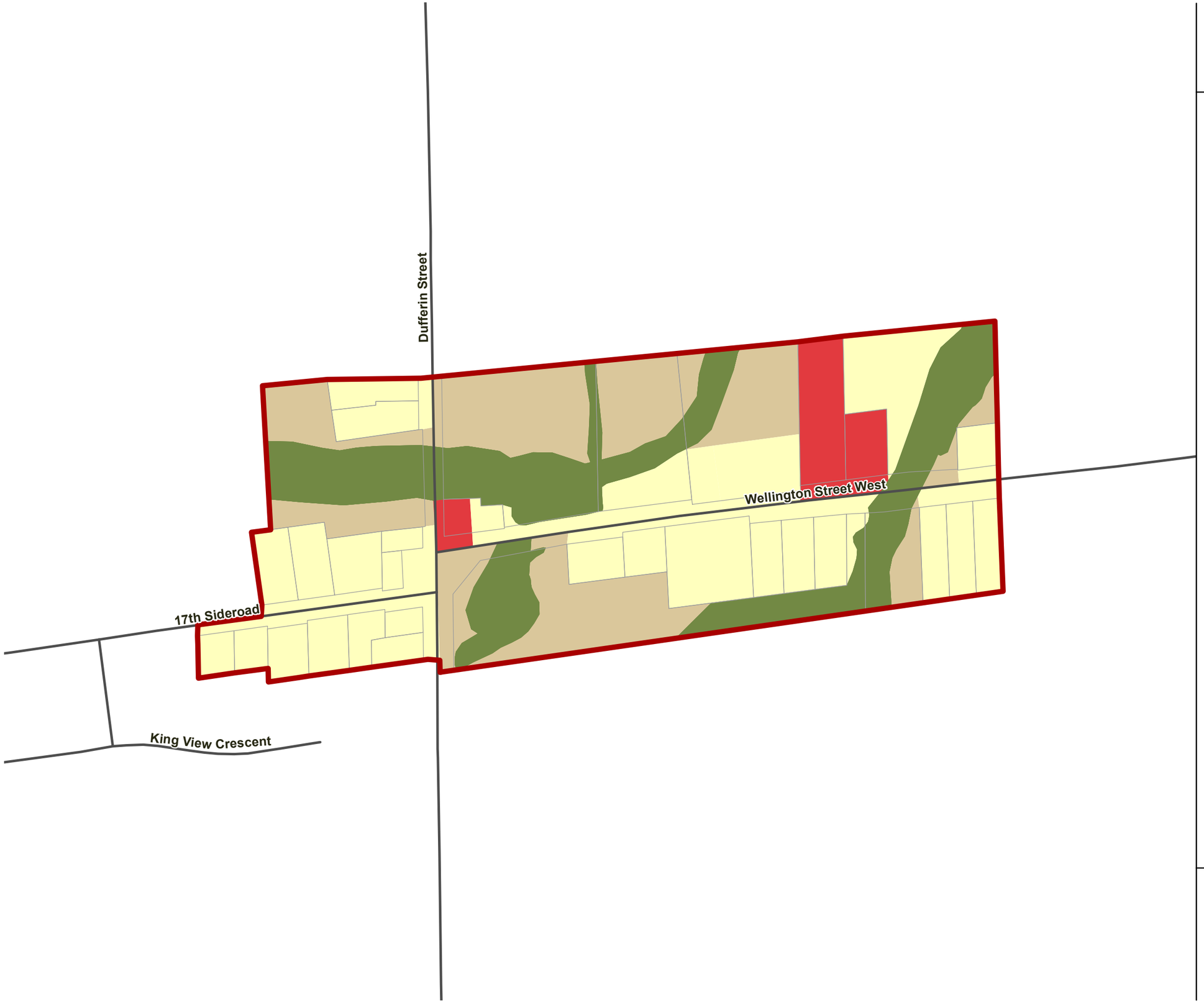
Adopted by Council – September 23, 2019

SCHEDULE 'E7'
HAMLET OF SNOWBALL
LAND USE DESIGNATIONS

TOWNSHIP OF KING
OFFICIAL PLAN



Hamlet Boundary

Land Use Designations

- Hamlet Residential
- Hamlet Commercial
- Hamlet Rural Area
- Natural Heritage System

N

0 100 200 m

Produced by:
WSP

Sources:
Base Data: MNRF, York Region & Township of King
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Adopted by Council – September 23, 2019

KING TOWNSHIP – 2020 TRANSPORTATION MASTER PLAN

THE WAY FORWARD

MARCH 2020

Appendix B

CONSULTATION AND ENGAGEMENT MATERIALS AND FEEDBACK

B-1 Notice of Study Commencement

Township of King

TRANSPORTATION MASTER PLAN

Notice of Study Commencement

Come help shape the way forward!



ABOUT THE STUDY

King Township is updating its Transportation Master Plan (TMP) to guide its transportation network to the year 2031. The plan and its vision will include strategies to improve different modes of travel including walking, cycling, transit and car. The public information centres provide residents an opportunity to comment on issues with travelling around the Township and provide input on ways to improve the multi-modal transportation network.

DROP BY AT ANY ONE OF OUR MEETINGS

King City

Tuesday, October 1, 2019
6:00 pm – 8:00 pm

King City Arena,
Upstairs Hall
25 Doctors Lane, King City, ON
L7B 1G2

Nobleton

Wednesday, October 2, 2019
6:00 pm – 8:00 pm

Nobleton Community Hall,
Downstairs Hall
19 Old King Road, Nobleton, ON
L0G 1N0

Schomberg

Tuesday, October 8, 2019
6:00 pm – 8:00 pm

Trisan Centre,
Multi-Purpose Room A
25 Dillane Drive, Schomberg, ON
L0G 1T0

HOLLAND MARSH SOUP × FEST

Visit our booth at Soupfest on Saturday, October 5, 2019!

11:00 am – 3:00 pm
Ansnorveldt Park
18997 Dufferin Street, Ansnorveldt, ON

Cannot attend? For more information about the Transportation Master Plan, please visit: **tmp.king.ca**

wsp KING TOWNSHIP OF KING

B-2 Public Information Centre Display Boards

WELCOME!

Township of King
TRANSPORTATION MASTER PLAN

Public Information Centre

King City	Nobleton	Schomberg
Tuesday, October 1, 2019 6:00 pm – 8:00 pm	Wednesday, October 2, 2019 6:00 pm – 8:00 pm	Tuesday, October 8, 2019 6:00 pm – 8:00 pm
King City Arena, Upstairs Hall 25 Doctors Lane, King City, ON L7B 1G2	Nobleton Community Hall, Downstairs Hall 19 Old King Road, Nobleton, ON L0G 1N0	Trisan Centre, Multi-Purpose Room A 25 Dillane Drive, Schomberg, ON L0G 1T0

WHAT IS THE TOWNSHIP OF KING TRANSPORTATION MASTER PLAN?

A **Transportation Master Plan (TMP)** is...

- A guide for decision making
- A multi-modal transportation plan to the year 2031
- A communication tool
- A community building asset
- An opportunity to support partnerships
- A community long-term vision
- A strategy for goal implementation
- A data-driven process for sound decision-making

Why Update the TMP?

Proactively plan for all modes

Provide options for how people get around

Support goals for a **vibrant and connected community**

Accommodate future generation needs

Enhance the quality of life for people who live, work or play in the Township

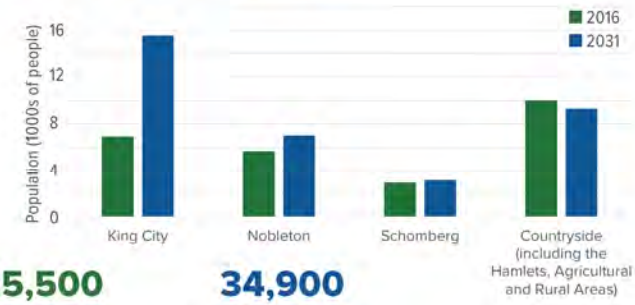
The Municipal Class EA Process

The TMP is being completed consistent with approach 1 of the Municipal Class EA (MCEA) Master Planning process. Phases 1 and 2 of the MCEA process will be completed including:

Identification of problem / opportunity statement → Identification of alternatives → Evaluation of alternatives → Selection of preferred alternatives

EXISTING CONDITIONS

About the Residents...

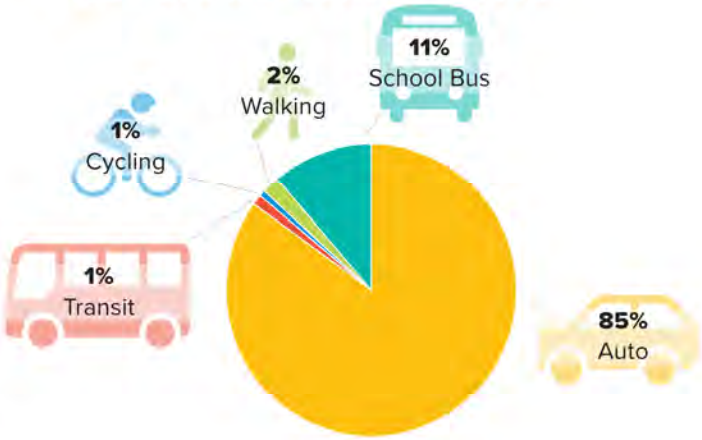


25,500
2016

34,900
2031 Forecast

37%
increase over this 15-year period, as directed by the 2010 York Region Official Plan

How are the Networks Used?



Existing Transportation Conditions

Transit

Available transit in King Township is operated by regional and inter-regional transit services. **York Region Transit (YRT) and GO Transit** provide bus and rail services.

Walking & Cycling

There are over **300 km** of existing active transportation facilities including:

- Off-road multi-use trails
- Sidewalks
- Signed routes
- Paved shoulders
- Bike lanes

Roads

Roads within the Township are currently categorized as:

- Provincial highways / freeways
- Regional roads
- Township roads

MOVING KING TOWNSHIP FORWARD

King Township envisions...

*active transportation facilities, transit routes and roads that support the **growth of vibrant communities** and **enhance the quality of life** for residents. The multi-modal transportation network should provide mobility and connectivity that is **sustainable, accessible and affordable** for residents of all ages and abilities to the year 2031.*

How to Shape King Township Forward

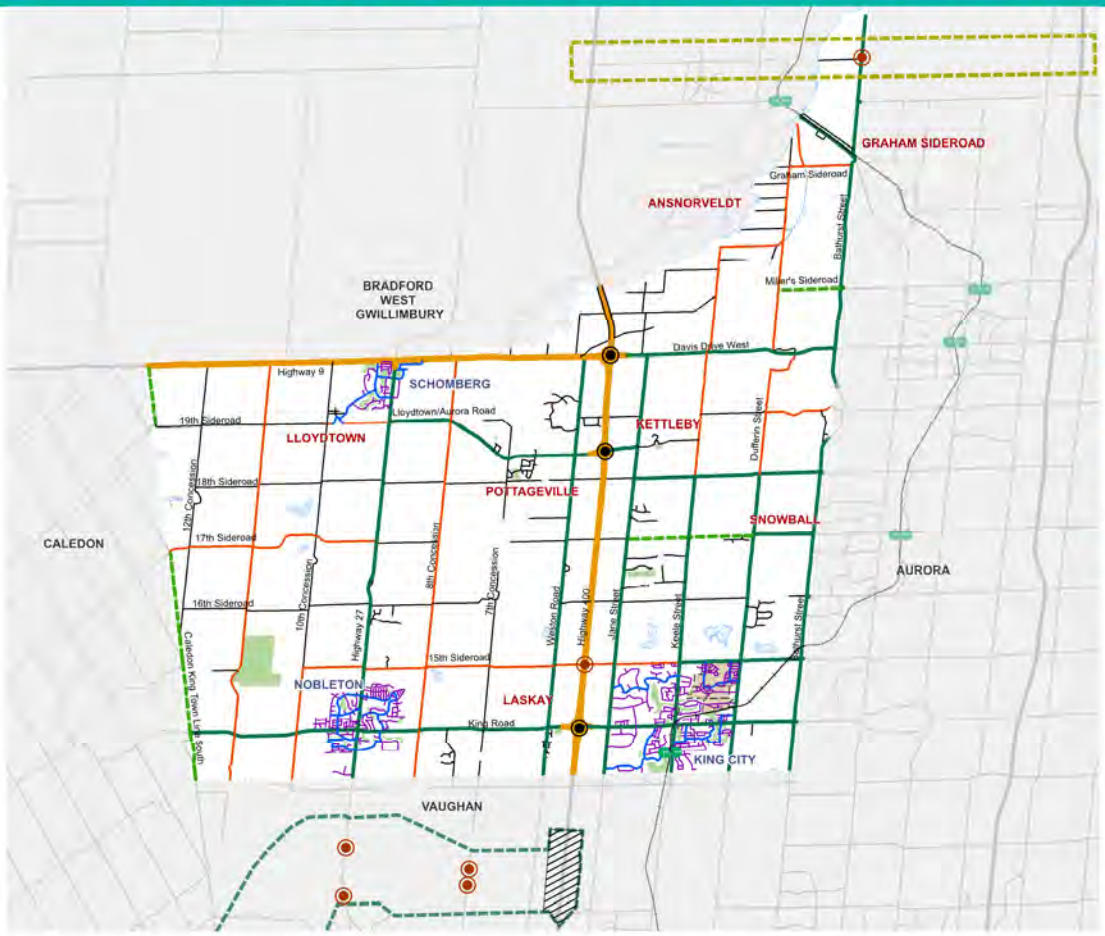
Does the transportation alternative...

- Support Accessible and Active Transportation
- Support Goods Movement
- Support Transit
- Limit Environmental Impacts
- Relieve Congestion
- Provide Connectivity

Three groups of alternative solutions were identified:

Do Nothing	2015 TMP	2019 TMP Update
1. Construct only what is currently funded and then stop all further investment in transportation	2. Implement all projects recommended in the 2015 King Transportation Master Plan (TMP)	3. Implement 2015 projects and new proposed projects

ROAD NETWORK IMPROVEMENTS - 2031 Road Classification and Jurisdiction



Waterbody
Park / Open Space
Current Proposed Development Application
Bradford By-pass Planning Study Area
GTA West Corridor Planning Study Area
Potential Freeway-to-Freeway Interchange
Existing Interchange Location
Potential Interchange Location

Road Classification

- Provincial Highway / Freeway (MTO)
- Arterial Road (York Region)
- Arterial Road (Township)
- Rural Collector
- Rural Local
- Urban Collector
- Urban Local

Other Transportation Network Features

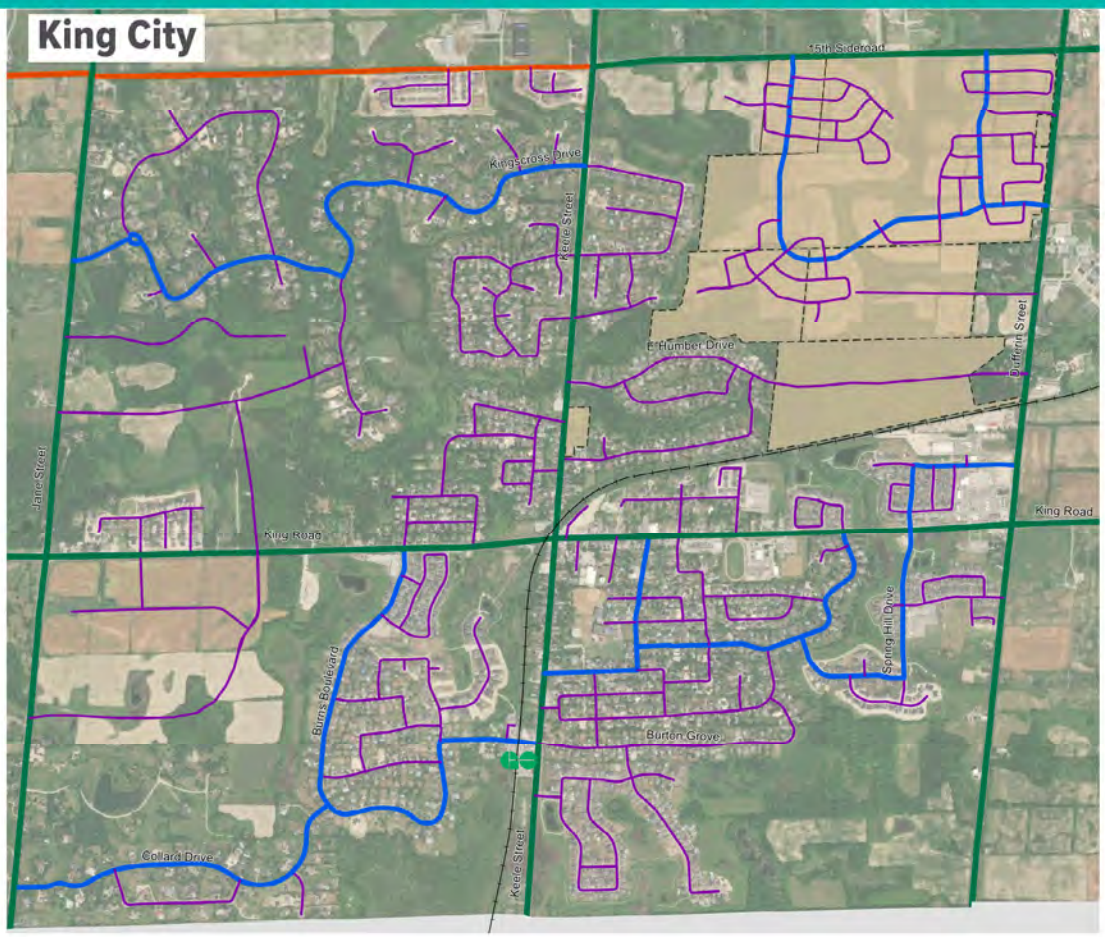
- GO Train Station
- GO Train Rail Line

0 3 6 km

DRAFT

wsp KING TOWNSHIP OF KING

ROAD NETWORK IMPROVEMENTS - 2031 Road Classification and Jurisdiction



Current Proposed Development Application

Road Classification

- Provincial Highway / Freeway (MTO)
- Arterial Road (York Region)
- Arterial Road (Township)
- Rural Collector
- Rural Local
- Urban Collector
- Urban Local

Transit Network

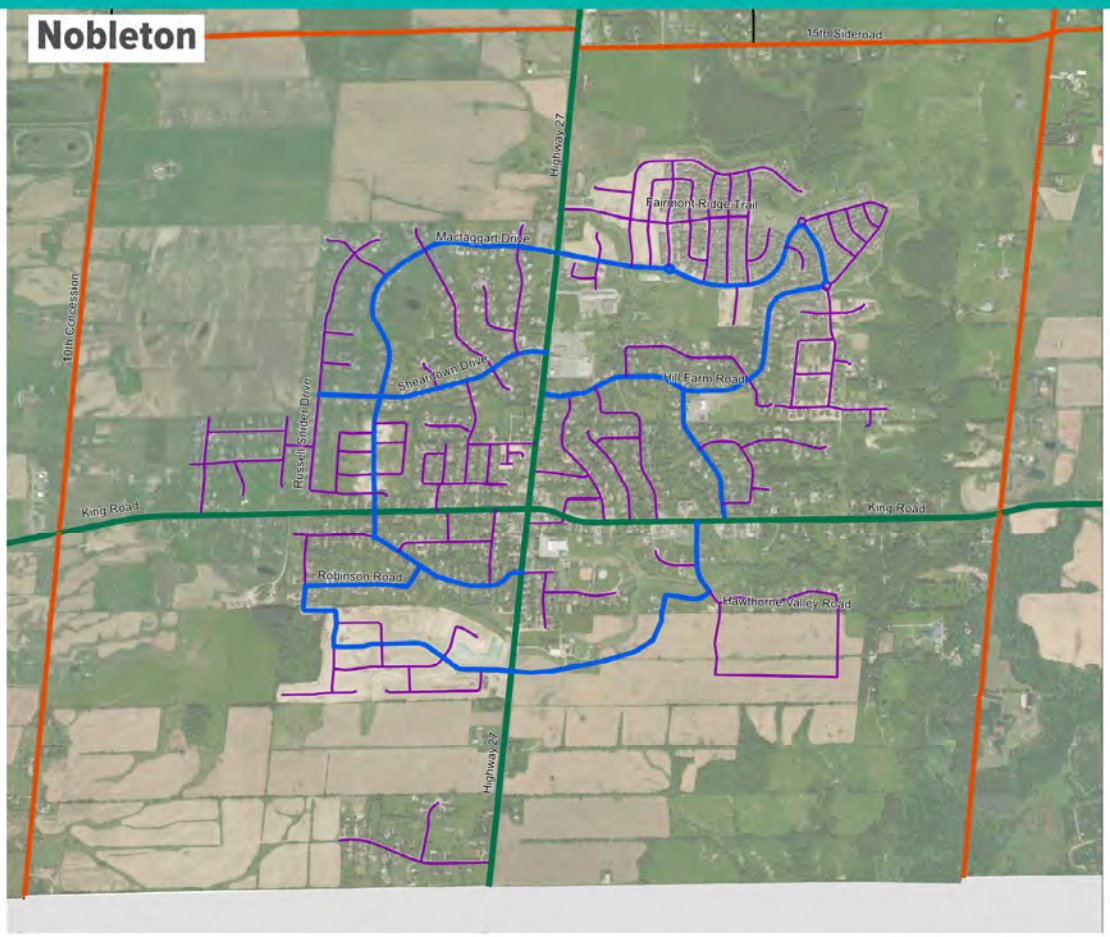
- GO Train Station
- GO Train Rail Line

0 0.5 1 km

DRAFT

wsp KING TOWNSHIP OF KING

ROAD NETWORK IMPROVEMENTS - 2031 Road Classification and Jurisdiction



Current Proposed Development Application

Road Network

- Provincial Highway / Freeway (MTO)
- Arterial Road (York Region)
- Arterial Road (Township)
- Rural Collector
- Rural Local
- Urban Collector
- Urban Local

Transit Network

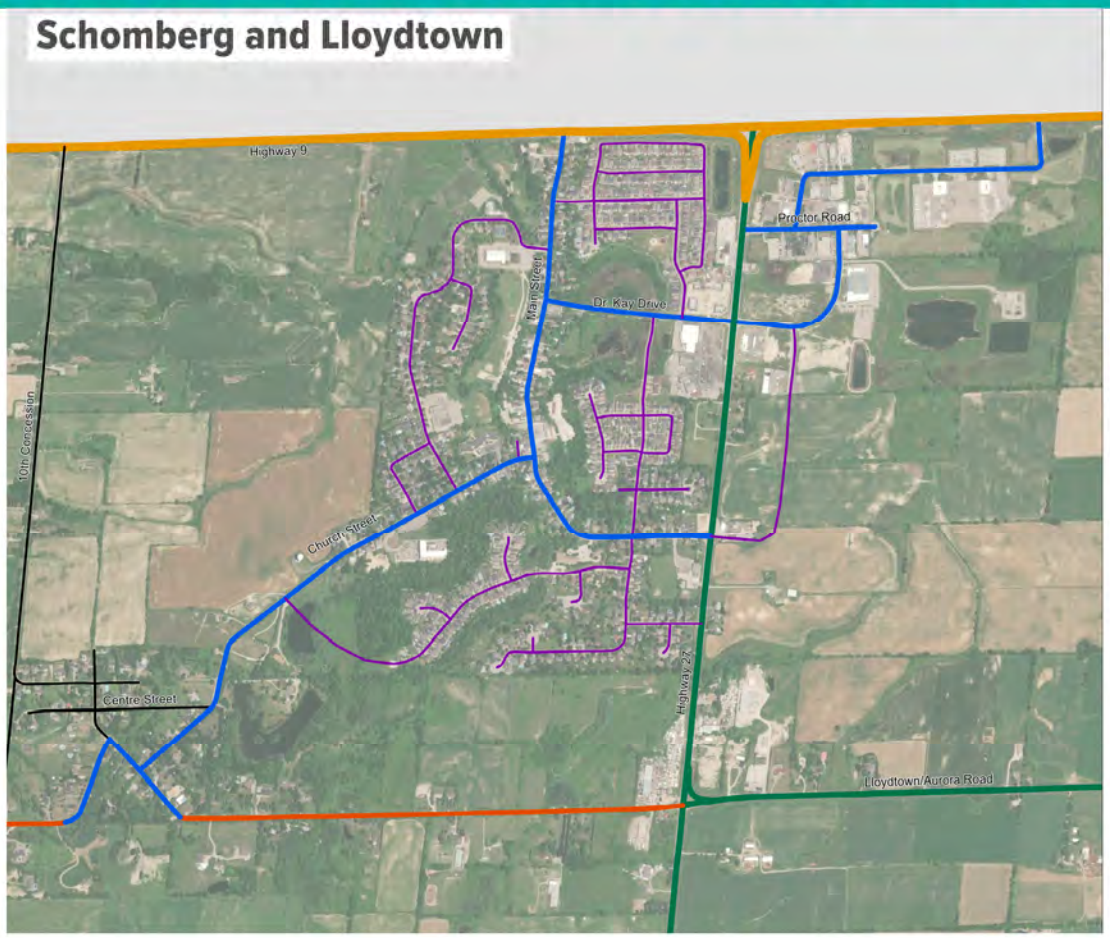
- GO Train Station
- GO Train Rail Line

0 0.5 1 km

DRAFT

wsp KING TOWNSHIP OF KING

ROAD NETWORK IMPROVEMENTS - 2031 Road Classification and Jurisdiction



Current Proposed Development Application

Road Network

- Provincial Highway / Freeway (MTO)
- Arterial Road (York Region)
- Arterial Road (Township)
- Rural Collector
- Rural Local
- Urban Collector
- Urban Local

Transit Network

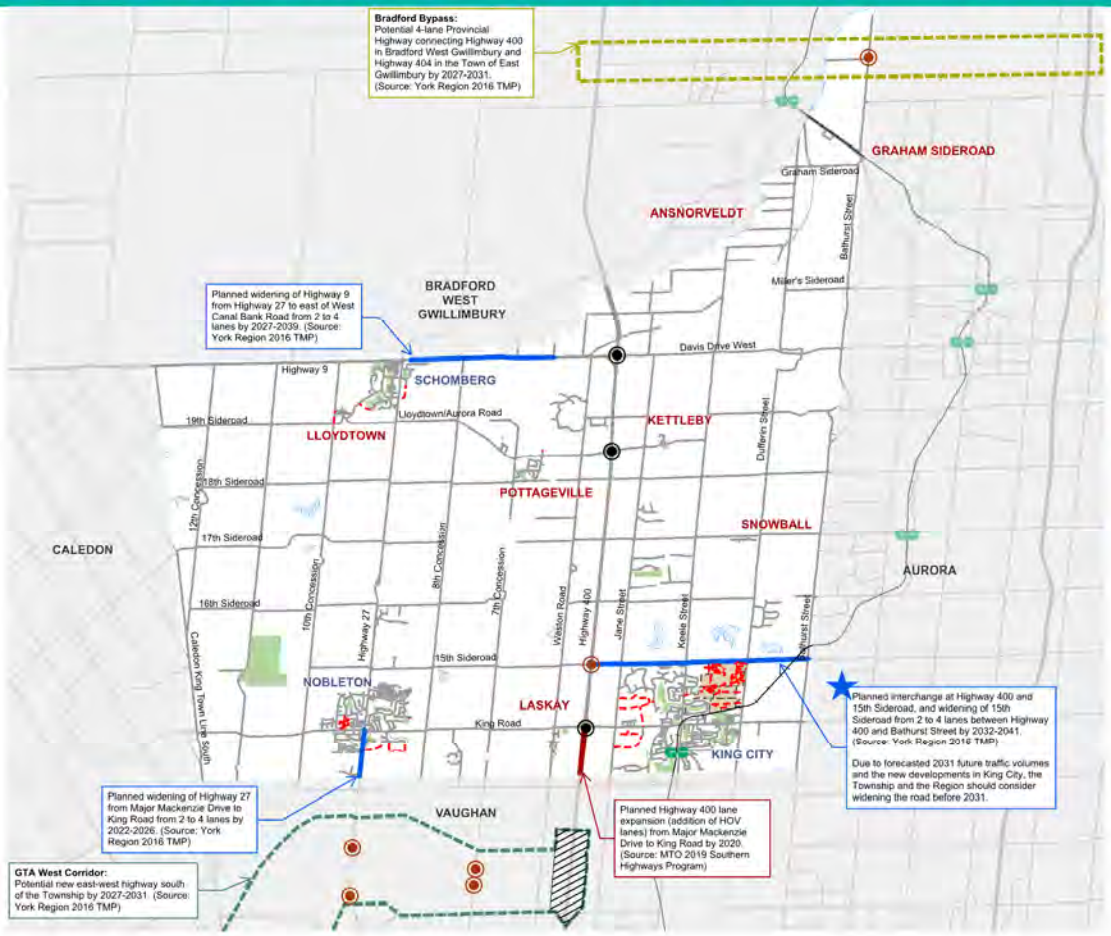
- GO Train Station
- GO Train Rail Line

0 0.35 0.7 km

DRAFT

wsp KING TOWNSHIP OF KING

ROAD NETWORK IMPROVEMENTS - 2031 Number of Vehicle Lanes



Waterbody
Park / Open Space
Current Proposed Development Application
Bradford By-pass Planning Study Area
GTA West Corridor Planning Study Area
Potential Freeway-to-Freeway Interchange
Existing Interchange Location
Potential Interchange Location

Proposed Improvements

- New 2-Lane Road
- Existing 2 Lanes + 2 New Lanes
- Existing 6 Lanes + 2 New HOV Lanes[1]

Other Transportation Network Features

- Road with No Change
- GO Train Station
- GO Train Rail Line
- King TMP Recommendation

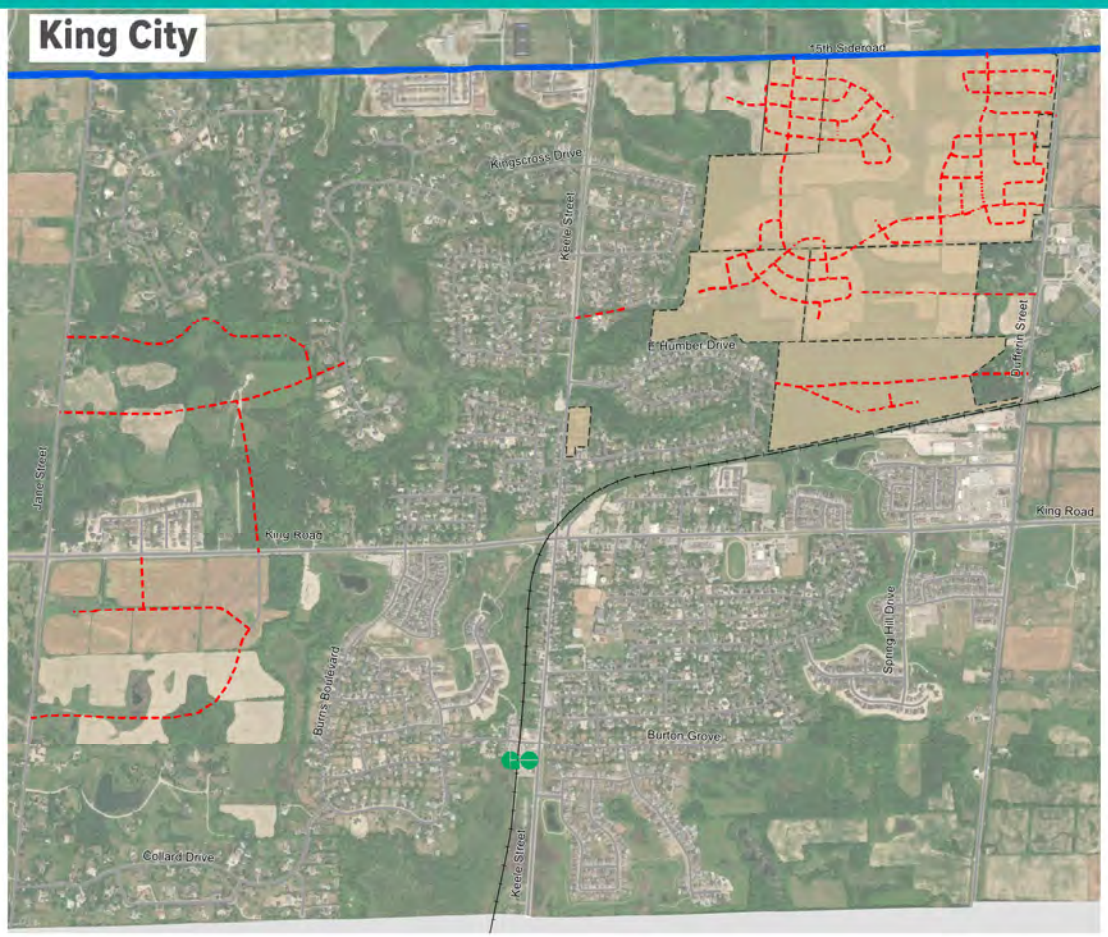
Note:
1. HOV: high-occupancy vehicle

0 3 6 km

DRAFT

wsp KING TOWNSHIP OF KING

ROAD NETWORK IMPROVEMENTS - 2031 Number of Vehicle Lanes



Current Proposed Development Application

Proposed Improvements

- New 2-Lane Road
- Existing 2 Lanes + 2 New Lanes
- Existing 6 Lanes + 2 New HOV Lanes[1]

Other Transportation Network Features

- Road with No Change
- GO Train Station
- GO Train Rail Line

Note:
1. HOV: high-occupancy vehicle

0 0.5 1 km

DRAFT

wsp KING TOWNSHIP OF KING

ROAD NETWORK IMPROVEMENTS - 2031 Number of Vehicle Lanes

Current Proposed Development Application

Proposed Improvements

- New 2-Lane Road
- Existing 2 Lanes + 2 New Lanes
- Existing 6 Lanes + 2 New HOV Lanes[1]

Other Transportation Network Features

- Road with No Change
- GO Train Station
- GO Train Rail Line

Note:
1. HOV: high-occupancy vehicle

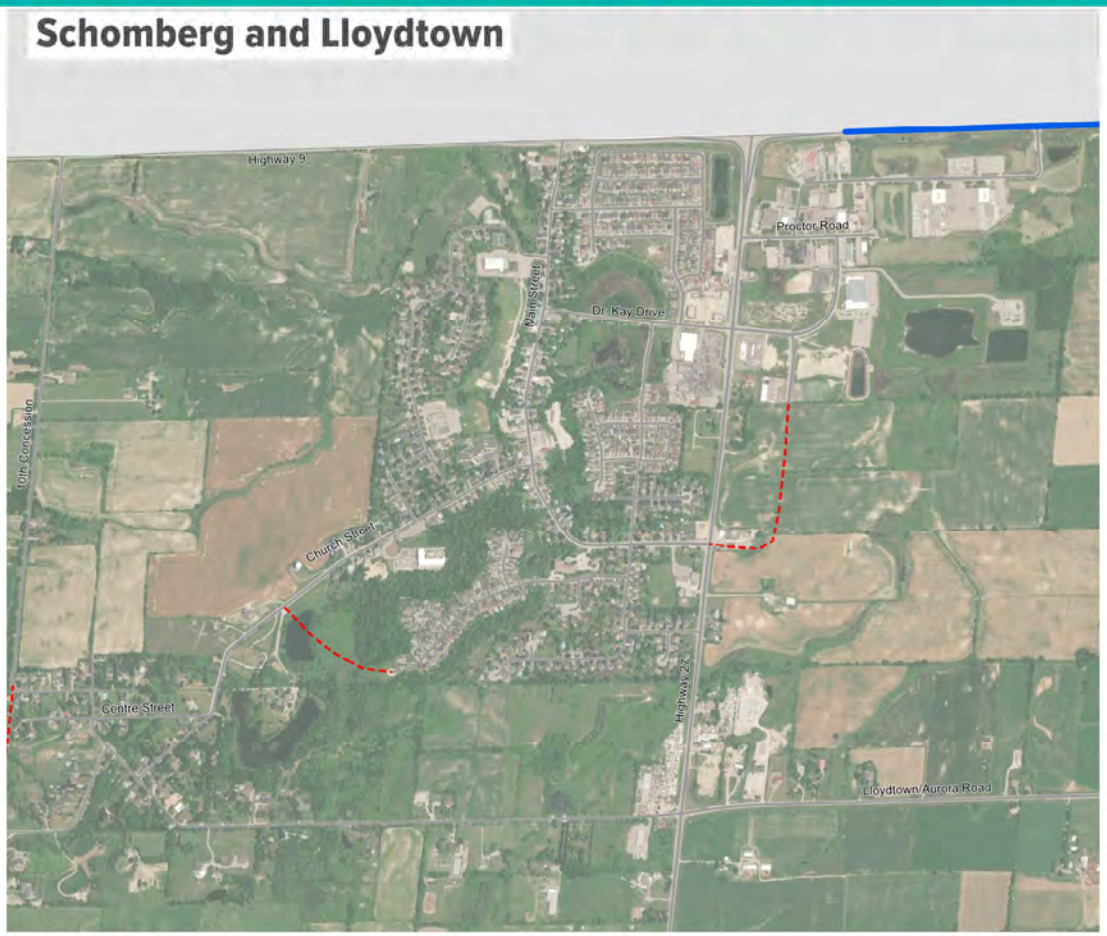
N

0 0.5 1 km

DRAFT

wsp KING TOWNSHIP OF KING

ROAD NETWORK IMPROVEMENTS - 2031 Number of Vehicle Lanes



Current Proposed Development Application

Proposed Improvements

- New 2-Lane Road
- Existing 2 Lanes + 2 New Lanes
- Existing 6 Lanes + 2 New HOV Lanes[1]

Other Transportation Network Features

- Road with No Change
- GO Train Station
- GO Train Rail Line

Note:
1. HOV: high-occupancy vehicle

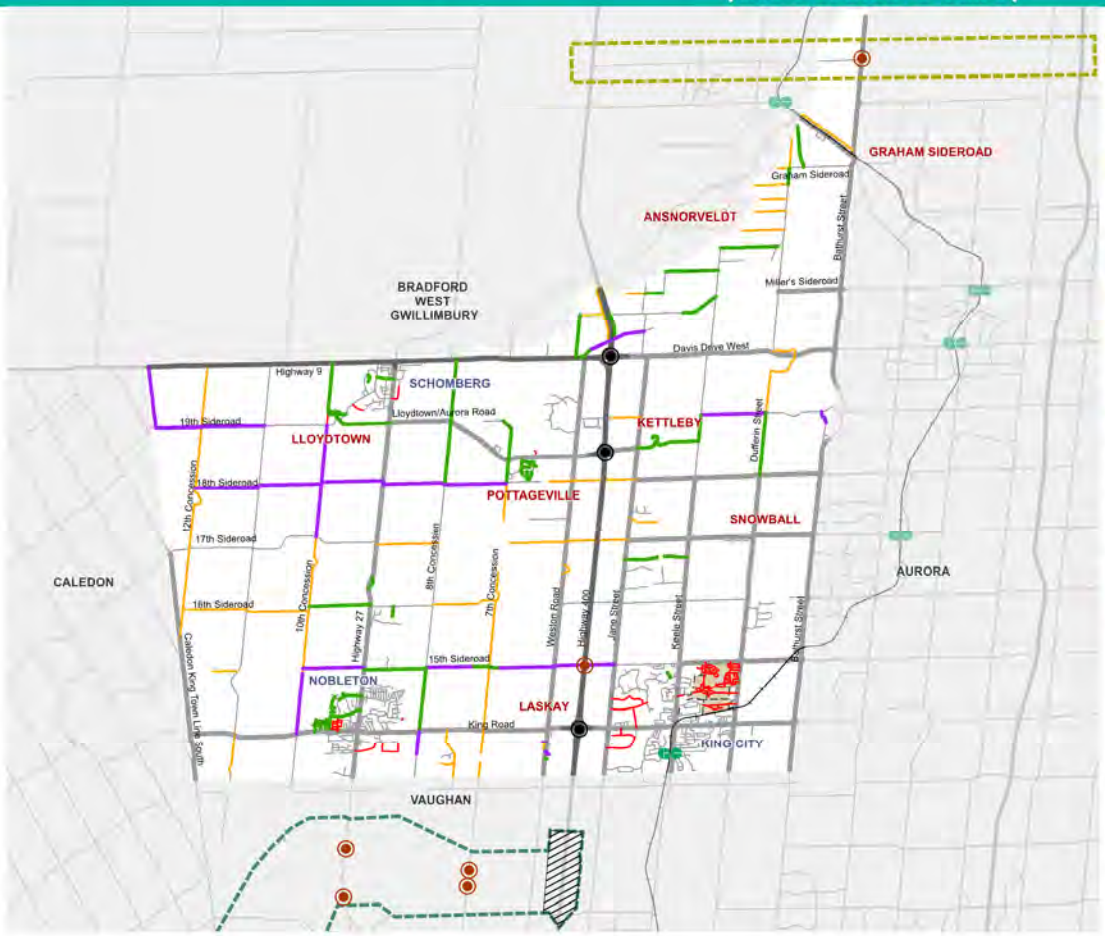
N

0 0.35 0.7 km

DRAFT

wsp KING TOWNSHIP OF KING

ROAD NETWORK IMPROVEMENTS - 2031 Recommended Paving
(Based on Traffic Volumes)



Waterbody
Park / Open Space
Current Proposed Development Application
Bradford By-pass Planning Study Area
GTA West Corridor Planning Study Area
Potential Freeway-to-Freeway Interchange
Existing Interchange Location
Potential Interchange Location

Proposed Paving Improvements
- New Asphalt Road
- Repave Asphalt
- Upgrade Gravel to Asphalt

Roadway Surface
- Gravel Road
- Paved Provincial Highway / Freeway
- Paved Regional Road
- Paved Township Road

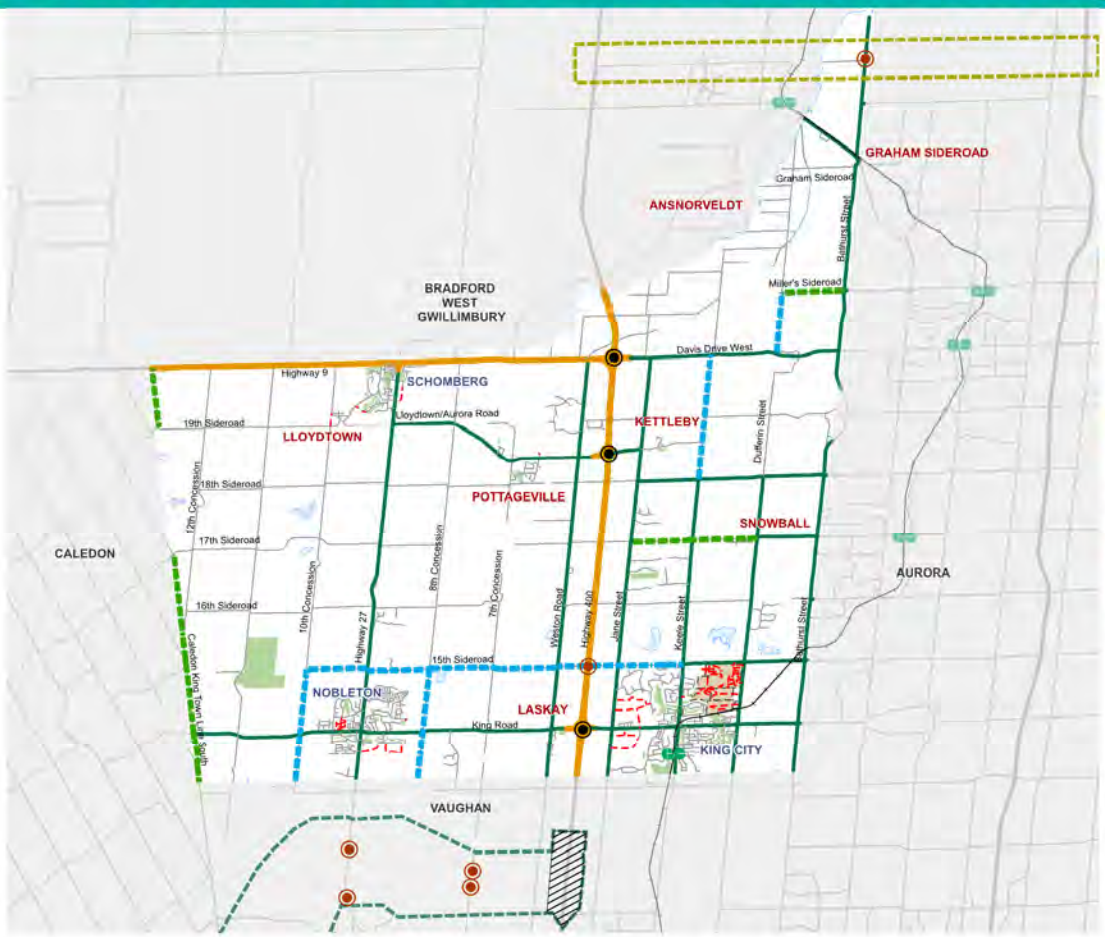
Other Transportation Network Features
- GO Train Station
- GO Train Rail Line

0 3 6 km

DRAFT

wsp KING TOWNSHIP OF KING

ROAD NETWORK IMPROVEMENTS - 2031 Roads Serving Regional Functions



Waterbody
Park / Open Space
Current Proposed Development Application
Bradford By-pass Planning Study Area
GTA West Corridor Planning Study Area
Potential Freeway-to-Freeway Interchange
Existing Interchange Location
Potential Interchange Location

Road Network
- Provincial Highway / Freeway
- Regional Road
- Township Road

Potential Roads to be Uploaded to Regional Roads
- Road currently serving regional functions
- Road that will potentially serve regional functions (for further discussion)

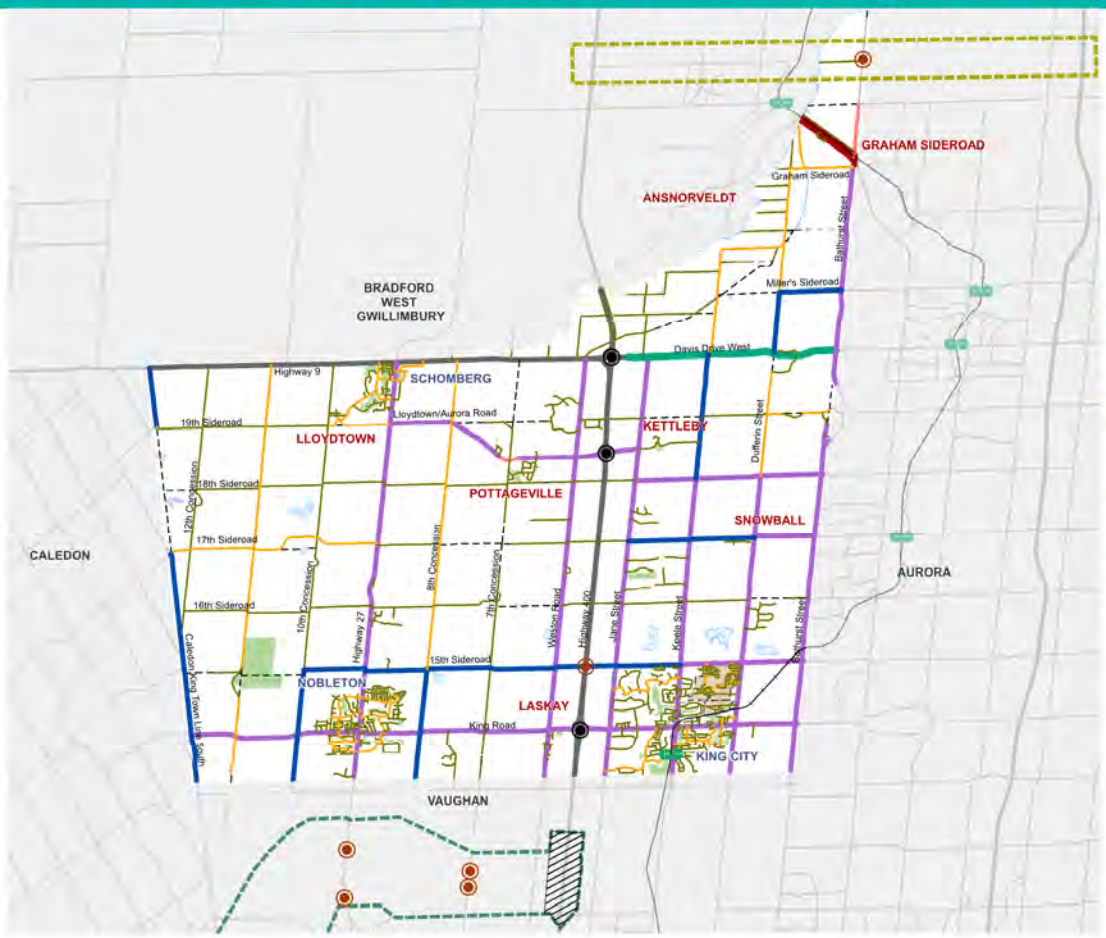
Other Transportation Network Features
- New 2-Lane Road
- GO Train Station
- GO Train Rail Line

0 3 6 km

DRAFT

wsp KING TOWNSHIP OF KING

ROAD NETWORK IMPROVEMENTS - 2031 Rights-of-Way Network



Waterbody
Park / Open Space
Current Proposed Development Application
Bradford By-pass Planning Study Area
GTA West Corridor Planning Study Area
Potential Freeway-to-Freeway Interchange
Existing Interchange Location
Potential Interchange Location

Regional Roads Rights-of-Way

- Up to 30 metres
- Up to 36 metres
- Up to 43 metres
- Up to 45 metres

Township Roads Rights-of-Way

- 20 metres
- 26 metres
- Up to 36 metres (Protected for Upload to Region)

Other Transportation Network Features

- Provincial Highway / Freeway
- Unopened Road Allowance
- GO Train Station
- GO Train Rail Line

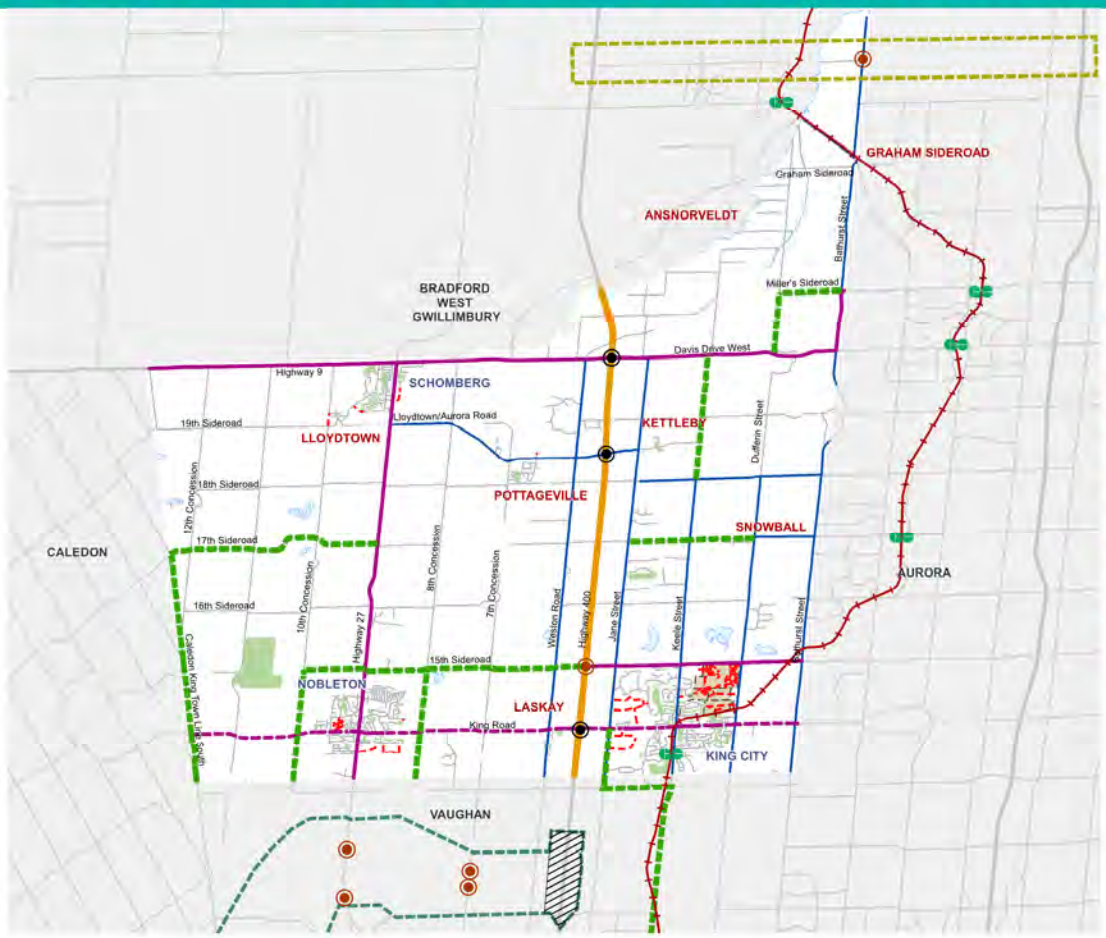
Note:
The ROWs are based on Township's standard cross-section widths. Additional ROW may be needed at intersections, grade separated crossings or in consideration the existing ROW are actually greater. ROW will be protected as part of the development approval process, further refined during the Environmental Assessment and detail design stages.

0 3 6 km

DRAFT

wsp KING TOWNSHIP OF KING

ROAD NETWORK IMPROVEMENTS - 2031 Goods Movement Network



Waterbody
Park / Open Space
Current Proposed Development Application
Bradford By-pass Planning Study Area
GTA West Corridor Planning Study Area
Potential Freeway-to-Freeway Interchange
Existing Interchange Location
Potential Interchange Location

York Region's Planned Goods Movement Network

Tier 1
- Highway Goods Movement Corridor
- Rail Line

Tier 2
- Primary Arterial Goods Movement Corridor
- Interim Primary Goods Movement Corridor

Tier 3
- Secondary Goods Movement Corridor

TMP Proposed Corridor
- Proposed New Goods Movement Corridors

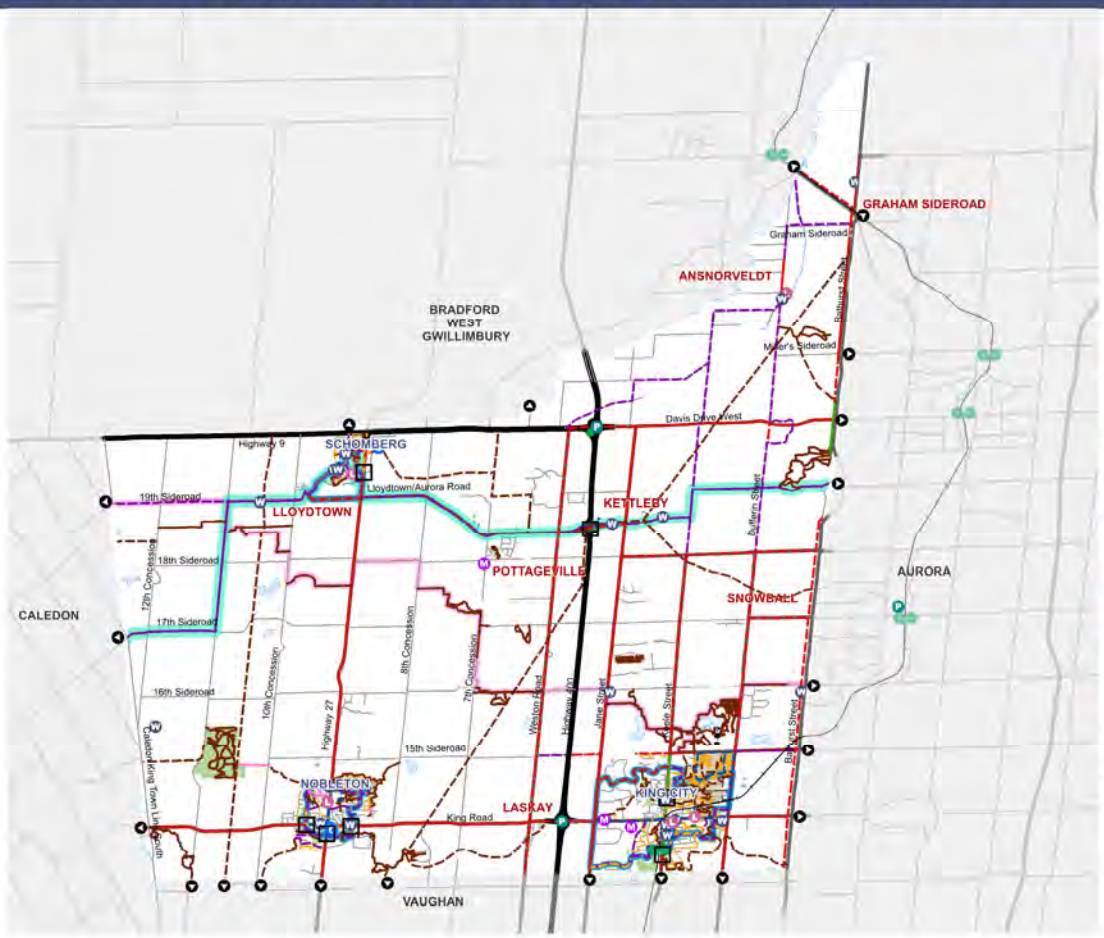
Other Transportation Network Features
- New 2-Lane Road
- GO Train Station

0 3 6 km

DRAFT

wsp KING TOWNSHIP OF KING

ACTIVE TRANSPORTATION IMPROVEMENTS - 2031



- Carpool and Commuter Parking Lot
- Library
- Place of Worship
- Elementary School
- Secondary School
- Private School
- Seneca College
- Municipal / Community Hall
- Recreation / Arena / Community Centre
- Connection to Surrounding Municipality
- Waterbody
- Park / Open Space
- Current Proposed Development Application

Active Transportation Network

Existing	Proposed[1]
	Sidewalk
	Off-Road Trail
N/A	In-Boulevard Pathway
	Bike Lane
	Paved Shoulder
	Signed Route

Proposed AT Improvement
- Crossing Enhancement
- Cycling Loop

Regional AT Network
- Greenbelt Cycling Route
- Oak Ridges Trail

Transit Network
- GO Bus Stop
- GO Station
- GO Train Rail Line

Road Network
- Provincial Highway / Freeway
- Regional Road
- Township Road

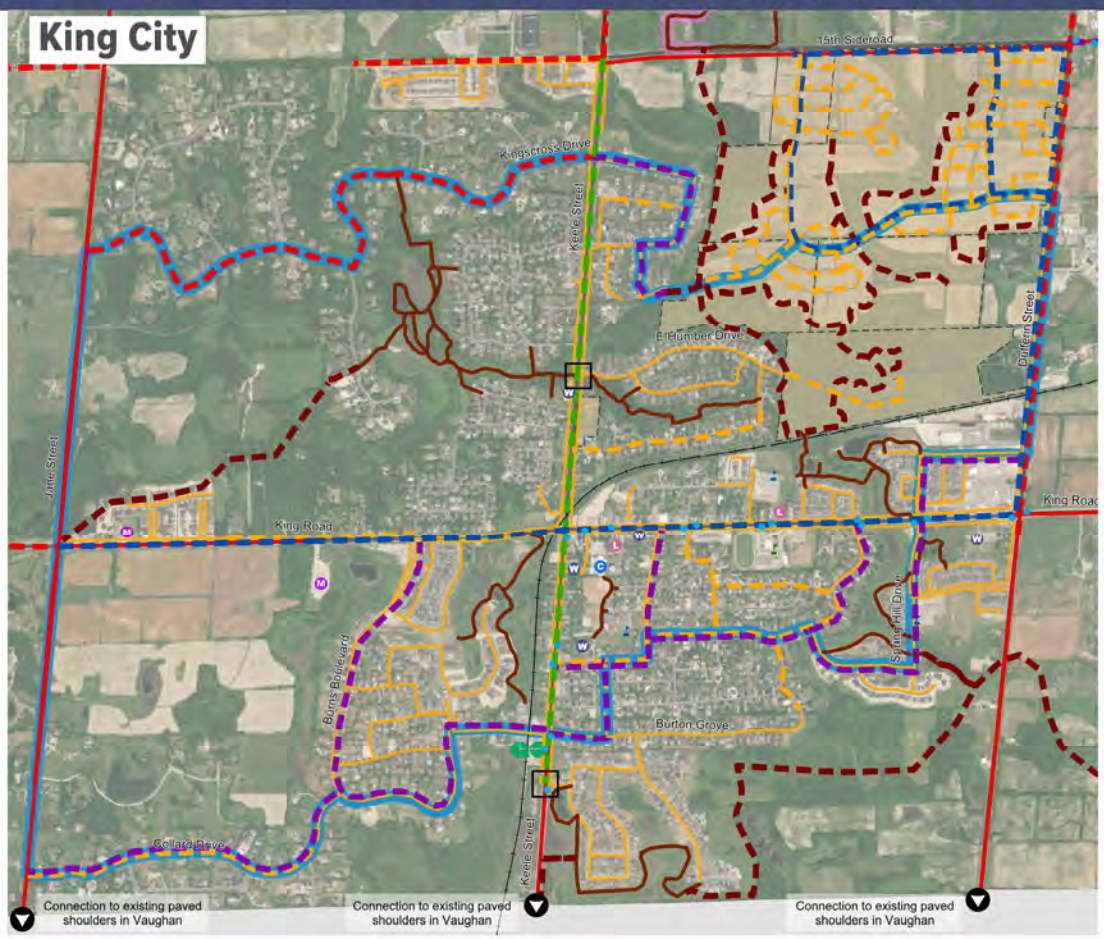
Note:
1. Includes routes that were previously proposed in the 2015 King Township TMP and by TRCA.

0 2.5 5 km

DRAFT

wsp KING TOWNSHIP OF KING

ACTIVE TRANSPORTATION IMPROVEMENTS - 2031



- Carpool and Commuter Parking Lot
- Library
- Place of Worship
- Elementary School
- Secondary School
- Private School
- Seneca College
- Municipal / Community Hall
- Recreation / Arena / Community Centre
- Connection to Surrounding Municipality
- Current Proposed Development Application

Active Transportation Network

Existing	Proposed[1]
	Sidewalk
	Off-Road Trail
N/A	In-Boulevard Pathway
	Bike Lane
	Paved Shoulder
	Signed Route

Proposed AT Improvements
- Crossing Enhancement
- Cycling Loop

Regional AT Network
- Greenbelt Cycling Route
- Oak Ridges Trail

Transit Network
- YRT Bus Stop
- GO Bus Stop
- GO Station
- GO Train Rail Line

Road Network
- Provincial Highway / Freeway
- Regional Road
- Township Road

Note:
1. Includes routes that were previously proposed in the 2015 King Township TMP and by TRCA.

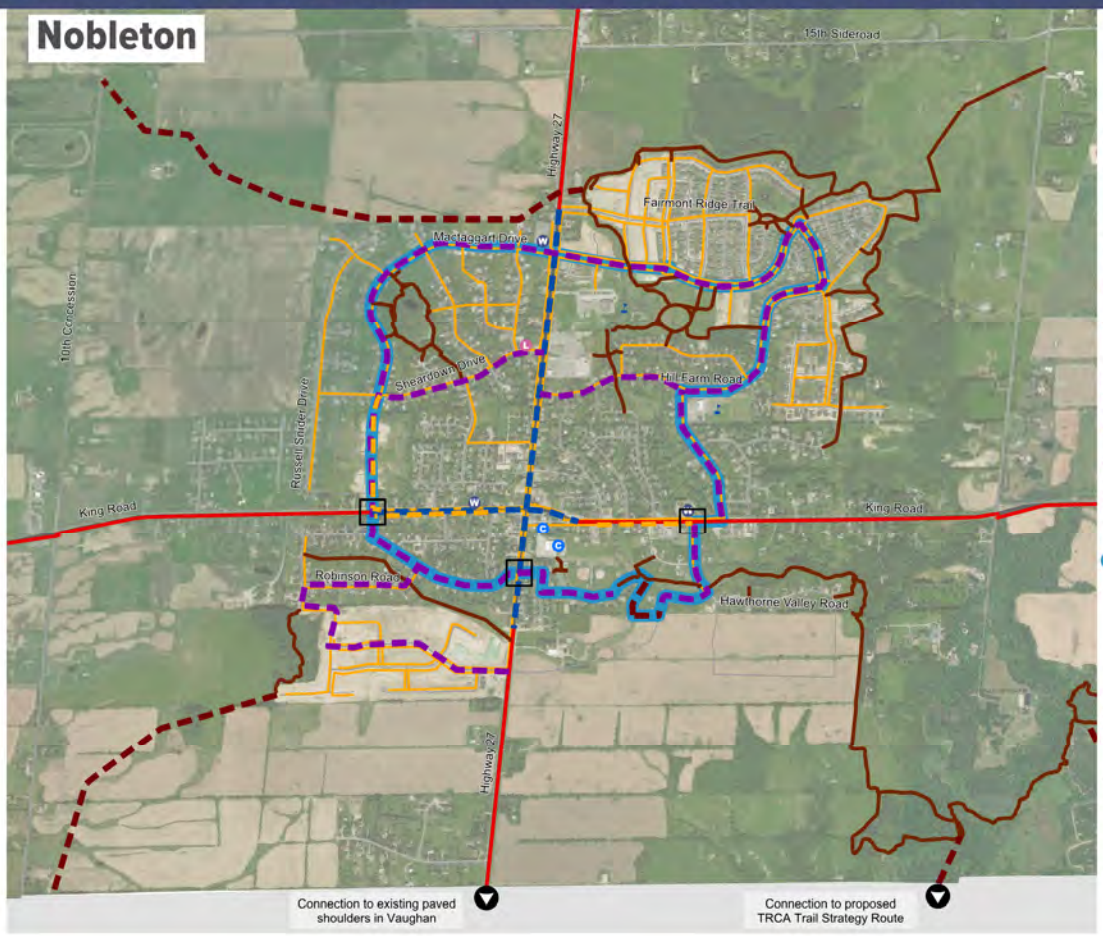
0 0.5 1 km

DRAFT

wsp KING TOWNSHIP OF KING

ACTIVE TRANSPORTATION IMPROVEMENTS - 2031

Nobleton



- Carpool and Commuter Parking Lot
- Library
- Elementary School
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- Private School
- Seneca College
- Place of Worship
- Municipal / Community Hall
- Recreation / Arena / Community Centre
- Connection to Surrounding Municipality
- Current Proposed Development Application

Active Transportation Network

Existing	Proposed[1]
	Sidewalk
	Off-Road Trail
N/A	In-Boulevard Pathway
	Bike Lane
	Paved Shoulder
	Signed Route

Proposed AT Improvements

- Crossing Enhancement
- Cycling Loop

Regional AT Network

- Greenbelt Cycling Route
- Oak Ridges Trail

Transit Network

- YRT Bus Stop
- GO Bus Stop
- GO Station
- GO Train Rail Line

Road Network

- Provincial Highway / Freeway
- Regional Road
- Township Road

Note:
1. Includes routes that were previously proposed in the 2015 King Township TMP and by TRCA.

0 0.5 1 km

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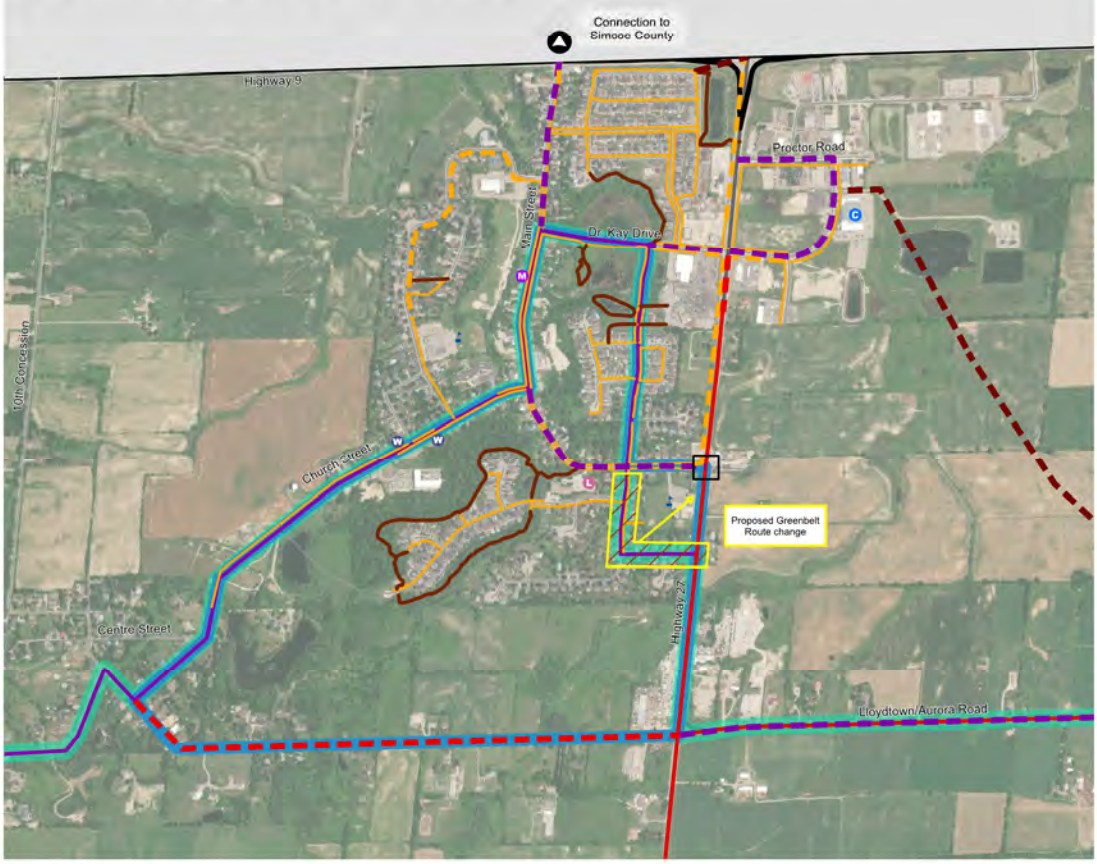
wsp KING TOWNSHIP OF KING

ACTIVE TRANSPORTATION IMPROVEMENTS - 2031

Schomberg and Lloydtown



- Carpool and Commuter Parking Lot
- Library
- Elementary School
- Secondary School
- Private School
- Seneca College
- Place of Worship
- Municipal / Community Hall
- Recreation / Arena / Community Centre
- Connection to Surrounding Municipality
- Current Proposed Development Application

Active Transportation Network

Existing	Proposed[1]
	Sidewalk
	Off-Road Trail
N/A	In-Boulevard Pathway
	Bike Lane
	Paved Shoulder
	Signed Route

Crossing Enhancement

- Crossing Enhancement
- Cycling Loop

Regional AT Network

- Greenbelt Cycling Route
- Oak Ridges Trail

Transit Network

- YRT Bus Stop
- GO Bus Stop
- GO Station
- GO Train Rail Line

Road Network

- Provincial Highway / Freeway
- Regional Road
- Township Road

Note:
1. Includes routes that were previously proposed in the 2015 King Township TMP and by TRCA.

0 0.35 0.7 km

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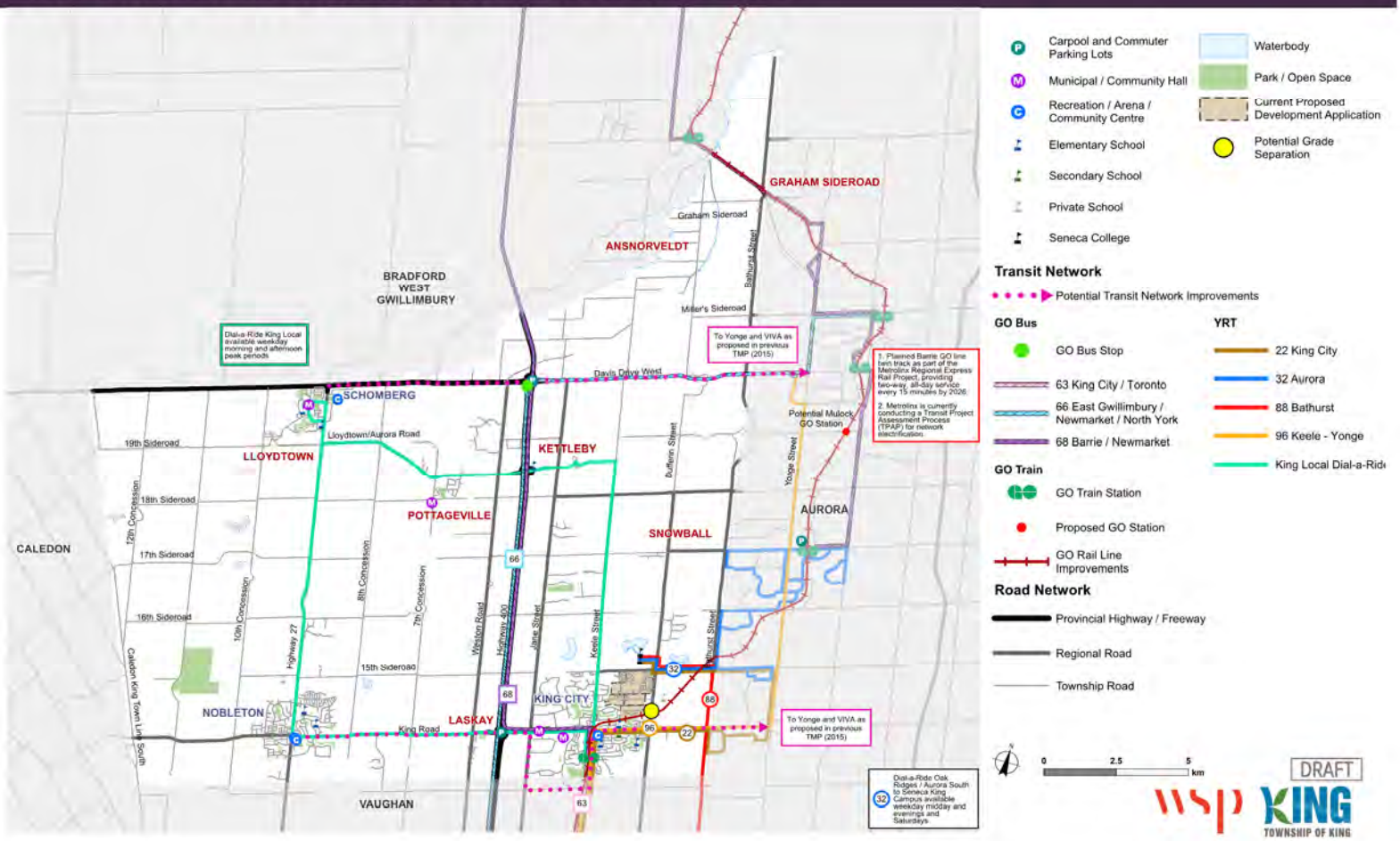
wsp KING TOWNSHIP OF KING

TRANSIT NETWORK IMPROVEMENTS - 2031



NEXT STEPS

Thank you for participating and contributing to the King Township Transportation Master Plan!

Project Information and Updates

Please visit the project website for more information about the Transportation Master Plan:

tmp.king.ca

To visit the website, scan the QR code using your phone!

Scan me

Contact Information

Additional information, inquiries and comments may be submitted to the Township's Engineering and Public Works Department and the Project Team:

KING TOWNSHIP OF KING

David Van Veen, C. Tech.
Senior Project Manager
t: 905.883.5321 x 4056
e: dvanveen@king.ca

wsp

Brett Sears, MCIP, RPP
Senior Project Manager
t: 289.982.4752
e: brett.sears@wsp.com

WHAT'S NEXT FOR KING'S TMP?

1. **Summarize** and process inputs received
   - Please provide your comments by **Friday, October 18, 2019**
2. **Identify** potential transportation alternatives
3. **Prepare** recommendations
4. **Present** to the Council

Township of King
TRANSPORTATION MASTER PLAN
Public Information Centre

COMMENT SHEET

King Township is updating its Transportation Master Plan (TMP) to guide its transportation network to the year 2031. The plan and its vision will include strategies to improve different modes of travel including walking, cycling, transit and car. For more information please visit: tmp.king.ca

To visit the website, scan the QR code using your phone!

Scan me

Personal information on this form is collected under the authority of the Environmental Assessment Act, Chap. E18, Section 7, and will be used in the development of the Transportation Master Plan. Questions about this collection should be directed to the Engineering and Public Works Department:

2585 King Road
King City, Ontario
L7B 1A1

Please print all responses

1. What are your three biggest concerns regarding transportation in the Township?

_____

_____

_____

_____

2. What are the top three transportation improvements that you would like to see in the Township?

_____

_____

_____

_____

3. The Township would like to make it easier for people to walk, cycle and take transit. What do you think are the three biggest challenges or constraints to providing greater transportation choices?

_____

_____

_____

_____

KING WSP

Please turn over

4. Do you have any other comments for the study team in terms of what we should study, examples we should consider or other ideas?

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

To be added to our mailing list and be informed of upcoming Study events, please provide the following information: (Please note that all information submitted will become part of the public record except for personal information. Name, address, postal code and email address will not be traded or sold for any reason.)

Name of Respondent: _____

Representing (Agency, Municipality, Property Owner, Tenant, etc.):_____

Address:_____

City / Town, Postal Code:_____

Email Address:_____

Please submit this comment sheet by **Friday, October 18, 2019**:

David Van Veen, C. Tech.
Senior Project Manager
t: 905.883.5321 x 4056
e: dvanveen@king.ca

Brett Sears, MCIP, RPP
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e: brett.sears@wsp.com

B-3 Consultation and Engagement Comments

Discipline	Comment	Location
Roads	I strongly object to the transportation master plan continuing to show a future road linkage between Keele Street and Tawes Trail. I have attached an additional letter explaining my reasons for this objection	Tawes Trail Extension
Roads	Concerned with congestion on Keele Street and King Road	Keele Street and King Road
Transit	Lack of public parking at GO station	GO Station
Roads	Want to extend 15th Sideroad to Highway 400 to alleviate congestion and truck traffic on Keele Street and King Road	15th Sideroad
Transit	Want more parking lots at GO station	GO Station
AT	Challenge to increase cycling/walking trail network	
Transit	Challenge to more parking at GO station	GO Station
Transit	Challenge for Keele Street Bus Line to run to Vaughan Subway	Keele Street
Roads	I would like to add to his stated concern about the suggestion re: the widening of 15 th SDRD to hwy 400 prior to 2031. Given that the required EA for assessing the punch to Jane (i.e. going beyond the current dead end) is not even on the 10 year YR plan I wonder why we would be promoting the uploading of the 15th and the widening before 2031.	15th Sideroad
Roads	Looking at the map today I wondered why the proposed new roads through the proposed MOK and Bushland subdivisions would be showing the way they are. i) The draft subdivision for NE Landowners group is approved...and on the map their lands are shaded brown. The new roads in MOK and Bushland are marked in with no indication that the development is not approved. And....I question the dotted red line showing the one road going all the way to Manitou....the draft plan going to LPAT shows that there is not a 2 land road but rather an emergency route.	Manitou Drive
Transit	GO Station – There are improvements planned for the King GO Station – according to the Metrolinx website, there are plans for upgrades in the near future including 500 new parking spaces, a new kiss and ride drop-off, a new platform, two new pedestrian bridges and bicycle facilities by 2022. If everyone ends up driving alone because there is more parking this will create another problem in the form of traffic congestion to and from the station and surrounding areas during peak travel times. With all the improvements we would propose a GO Station access project to promote active and sustainable transportation to the station by way of incentives and personalized travel planning (carpools, transit, cycling).	GO Station
AT	It's great to see there are plans to connect the existing active infrastructure with additional bike paths, lanes and trails. The connectivity for the communities will be a huge opportunity to promote more active travel to work, school, daily life and transit (including the GO Station). Smart Commute can do personalized travel planning with workplaces and the community/community hubs to promote all the great infrastructure as it's being built. We can also work with schools to promote active and sustainable travel as we continue to collaborate with the school boards and public health.	
AT	We can work with the communities during the construction (attend community events etc.) to help them find safe, alternative and sustainable travel options to school, work and within the community. Based on experience, it has been difficult for students living on campus to get into King City, particularly on the weekends as transit is very infrequent. When they implement the new off-road trail leading from 15th side-road into the town, we can certainly promote this infrastructure to students on campus as they are a member business.	
Transit	It was interesting at the ACT conference to hear that Kitchener/Waterloo made the decision to grow up instead of out to protect the way of life and farmlands in the surrounding townships. I'm sure King is facing similar decisions as their population increases. If they do decide to grow up instead of out in terms of development, they will need to look at more transit opportunities so that traffic doesn't take over in the long term.	
AT	Obviously in terms of the active transportation improvements the direction looks good in terms of connecting Seneca College with options as well as the GO Station. The more options available through a connected network as indicated on the Active Transportation Improvements map, the easier it is to actively shift behaviours – we saw this in our work in Aurora at the GO Station where they have a significant challenge and we were able to have significant impact on shifting behaviours.	Seneca College

Discipline	Comment	Location
Roads	No alternative routes south besides Regional Road 27, there are 6 concessions or sideroads missing (360m) that prevent them from being a through road which is especially important once the GTA West corridor is built (how to get there)	Nobleton
Roads	Widen King Road or provide completion of through roads on 15th or 16th Sideroad. Improve East-West traffic alternatives.	
AT	There are no bicycle paths that connect with other communities such as King City where there is access to transit	Nobleton
Roads	Close gap between King-Vaughan Road and Pine Valley Drive	7th Concession
Roads	Upgrade corridor designation to King-Vaughan to facilitate quick access from Nobleton to King GO Station and Highway 400 via Weston and Teston Road	King-Vaughan Road
Roads	Potential traffic calming	Kingscross Drive
AT	Recreation centre	Northwest of 15th Sideroad and Dufferin Street
AT	Potential signalized pedestrian crossing	E Humber Drive and Keele
AT	Possible existing trail connection to Dennison Street	Existing trail north of Dennison
Roads	Road does not exist today	Tawes Trail Extension
Roads	Remove, no ROW. Already agreed to remove this link from plans, see comment 53 in Official Plan response to comments matrix	Tawes Trail Extension
Roads	Concern with calling this a collector and implications of doing so	Kingscross Drive
Roads	Connection over water?	Proposed Linkage to Church
Roads	Remove this link, no ROW	Tawes Trail Extension
Roads	Environmental concern	Tawes Trail Extension
Roads	This doesn’t look correct. The road is crossing environmental feature	E Humber Drive Extension
Roads	To be uploaded to York Region as arterial (shouldn't be called a rural collector)	15th Sideroad
AT	Why paved shoulders? Environmental concerns (drainage), paved shoulders are not really needed, should just be a signed route	Kingscross Drive
AT	Not a lot of walkers on Kingscross Drive, tend to use trails more	Kingscross Drive
AT	Meadow, connection needed from trails to this meadow/park	Norman Drive
AT	See: King City Functional Development Plan/OP, wetland and environmental concerns here	Proposed Austin Rumble to Bathurst Trail
Roads	Wheres the industry arterial roads feed?	
Roads	Move primary arterial goods movement to King-Vaughan Road and create a King City bypass	King Road
Roads	Move interim primary corridor on King Road from Bathurst Street to Highway 400 to King-Vaughan Road	King Road
Roads	15th extension to Highway 400 is essential for traffic improvement	15th Sideroad
Roads	Local	Kingscross Drive
Roads	Stop sign at Watch Hill Road, Manitou Drive, Chelsea Lane	Kingscross Drive
Roads	Why?	Proposed 15th Sideroad
Roads	Why not an interchange here instead	17th Sideroad and Highway 400
Roads	Dangerous	17th Sideroad and Keele Street
Roads	Horrible	King Road and Jane Street
Roads	Horrible	King Road and Keele Street
Roads	Nomenclature of urban roads may lead to urban creep	
Roads		E Humber Drive Extension
Roads	Congestion hotspot	King Road/Keele Street
Roads	175 homes in the neighbourhood	Kingscross Drive
Roads	Local	Kingscross Drive
Roads	Do not send additional traffic on Kingscross Drive	Kingscross Drive
Roads	No, Bushland heights, Mansions on Kingscross development	New local south of Kingscross
Transit	More parking needed at GO station	King City GO Station
Transit	More east-west transit options	
Roads	We need 4 lanes on Highway 9 to Highway 400 from Highway 27 now	Highway 9
AT	Paving shoulders on north side by 2021 on 15th Sideroad	15th Sideroad
Roads	The draft plan is supposed to be winding rather than straight road to avoid speeding	New developmenet between Sheardown Drive and King
AT	TRCA concerns, constructed but not open due to concerns	Existing trail south of 15th Sideroad and 8th Concession
AT	Unofficial parking lot for TRCA trails	Southwest of 15th Sideroad and 8th Concession
Roads	Existing connection on King-Vaughan Road across 8th Concession	
AT	Narrow paved shoulders, want more trails	Highway 27
AT	Hiking trails - good to have them connected into 1 long trail	

Discipline	Comment	Location
Roads	Not enough room on Highway 400 for exchange at 15th Sideroad	15th Sideroad
Roads	Too close to the King Road interchange?	15th Sideroad Interchange
Roads	Good idea	Bradford Bypass
Roads	8th Concession connection to King-Vaughan Road to eliminate cars from King Road between 8th and 7th Concession	8th Concession
Roads	Connection to King-Vaughan Road	8th Concession
Roads	Davis Drive W from Bathurst missing a sign to turn right	Davis Drive West
Roads	Show actual road network as designed please	Mactaggart Drive Development
Roads	Whole stretch should be 4 lanes, spotty now	Highway 9 from Caledon King Town Line to Bathurst Street
Roads	Caledon King developments - Amazon truck travelling along King Road (E-W corridor)	Caledon King Townline
Roads	Bottleneck	King Road and Weston Road
Roads	Reduce speed limit on Lloydtown-Aurora Road through Pottageville	Lloydtown-Aurora Road
Roads	Gap between 10th Concession and 11th Concession, missing existing connection between east of 8th Concession and east of Highway 27	King-Vaughan Road
Roads	Gap between 8th Concession and King-Vaughan Road and towards Kipling	8th Concession
Roads	Need a right turn lane (NB to EB) at Caledon King Townline and King Road	Caledon King Townline and
Roads	Gap in Pottageville	18th Sideroad
Roads	Gap missing between Keele Street and Jane Street	15th Sideroad
Roads	Road network gaps, alternative routes to Highway 27	
Roads	Gap in 8th Concession (to Kipling?)	GTA West Corridor
Roads	Gap south of King Road, connect	17th Concession
Roads	Need alternative routes east-south-west	
Roads	Nice country road	15th Sideroad
Roads	Good roundabout	18th Sideroad and Keele Street
Roads	Dirt	Mill Road
Roads	Horrible	King Road and Weston Road
Transit	Express service GO from Newmarket to Yorkdale	GO Rail
AT	Bicycle routes out east-west to King City GO	
Transit	Need transit	
Transit	Reverse commute transit routes	
Transit	Weekend service, how to get to Toronto via transit	
Transit	Entice people to transit with free rides for limited time	
Transit	Bus service to and from GO stop at Highway 9 and Highway 400	Highway 9 and Highway 400
Transit	Bus connection with GO station for villages	
Transit	Need more transit in Nobleton	Nobleton
Transit	Need transit west of Highway 400	
Roads	Difficult to get on Highway 400 with congestion/traffic from Barrie	Highway 400
Roads	High collision intersection, especially at sunset (can't see while going westbound)	Highway 9 and Highway 27
Roads	Nice improvements	
Roads	Turtle crossing	Dr. Kay Drive and Cooper Drive
Roads	Turtle underpass	
Roads	(See map for drawing of King Road)	King Road
Roads	Give Nobleton alternative routes south and east and west. King Road and Highway 27 are the only ways out	
Roads	Speeding and traffic	Graham Sideroad
Roads	Speeding, busy, dangerous	Miller's Sideroad
Roads	Int	Davis Drive West and Highway
Roads	Turning lane at new office	
Roads	Carpool meeting spaces	

Topic	Comment Received
AT	Paved shoulder on 15th Sideroad from 10th Concession to 7th Concession and on 10th Concession from 15th Sideroad to King Road
Road Improvements	Planned road projects: - Nobleton: multi use trail on 15th - Nobleview west towards Bolton: future connection sidewalks - Trail: Mill Rd want to complete this connection, shown as trail in the TRCA plan
AT	No current trails south of Nobleton
AT and Sidewalks	5. Re sidewalks, paths.....Given recent complaints about paths for getting to GO train station I suggest that TMP classify paths in terms of importance. and hence provide direction on amount of winter maintenance. One could argue that a path through a park to reach GO station is as important as the sidewalks on Keele leading to GO.
AT	Bike lanes along Keele to the GO Station. We should try to accommodate e-scooters too.
Goods Movement	Improve goods movement texts to explain King Bypass in report. Is King-Vaughan a Regional or City road? There are high volumes of westbound through trucks on King Road to Highway 400.
Kingscross Classification	- The text refers to best practices from other municipalities for road classification & The Transport Association of Canada. -Please can you cite those sources & identify which would be similar to The Township of King? -Who is The Transport Association of Canada? Who are its members? -Please can you share The definition of signature class collector road & urban collector road? to what extent does density of housing form influence The definitions please?
Signature Collector Road Classification	1. Although the implications of identifying Kingscross Dr. as a "signature class rural road" are not identified I think it is far better than calling it rural arterial given the topography, the curves and inconsistent pedestrian paths. (I know that Ian Hilley, secretary in the local rate payers group spent time with both Peter A and WSP to ensure that the reality of that Drive was understood. I wonder if Collard Drive merits same classification. No pedestrian facility, some curves and some hills. fyi...for your background as to why Collard does NOT have line painting. When it was finally reconstructed, the residents were adamant that there should not be line painting....offended as it would make it look less rural, less "estate like." After a fairly aggressive campaign Mayor & I persuaded Engineering not to do the line painting.....I can tell you more when face to face.
Transit	2. I am concerned about several of the sections/points about Metrolinx in that it implies King has greater authority than we have and it implies we have not been trying. . i) page 92 of report talks about modifying reserve parking at GO. Not our jurisdiction. (People misunderstand this point....must not perpetuate it! ii) there are several comments about whistle blowing....residents are very upset, frustrated, and some very angry that there has been improvement in last 4 years. (My ward includes west side of tracks/station.) I think the TMP should reference status of getting noise walls, new gates to enable whistle cessation etc. etc. As TMP is written it sounds like we have been doing nothing..see ES-5 #5 I am not suggesting that TMP should paint a false picture of the reality BUT if one were to read TMP and has not talked/met with Staff or elected officials beforehand they would conclude nothing is being done.
15th Sideroad	3.15th SDRD Keele to 400 You will undoubtedly meet people wanting to talk this. I believe that this draft satisfies the concern that the environmental sensitivity was not being appropriated identified. I was shocked to see a reco to commence the EA...I gather you mean lobby YR to get started with it. News to me about the YR plan for widen 15th Bathurst-400 in 2031-2040....good to know. Good to see acknowledgment that GTA West could have impact on decisions about 15th.
King City Bypass / Goods movement	4. King City Bypass...page 59 of report. Want to understand further what is being suggested here.
Climate Emergency	6. I am disappointed that there is not attention to climate emergency declared by Township. Yes, there are comments made about an initiative being positive in this regard. But, I think this TMP in terms of priority/urgency is business as usual. I think there should be some actions identified which would make a difference...give the Council and public something to consider as an option.
Bradford Bypass	Change Bradford Bypass to 400-404 link
Goods Movement	Safety concerns at 8th Concession and King Road intersection. Were these reviewed in the TMP?
Whistle Blowing	Clear language that King is already working with the Region/Metrolinx on addressing this.
Climate Emergency	Climate change positive impact of the paved roads. More robust paragraph in the intro
Road Improvements	Sidewalk on Western Ave -- Yes or No?
Mill Road	Topography doesn't support trucks. 7th Concession with the interchange is better for trucks
Goods Movement	17th Sideroad should not be a proposed goods movement route as trucks from the Bolton Bypass will use it to enter King. 17th Sideroad was removed last time. 17th is not uploaded to the Region so we should take it off the goods movement map. 17th Sideroad and 12th Concession intersection has some sightline issues and previous collisions.
Road Improvements	Why are we proposing a linking of the 10th? Environmental Concerns
Road Improvements	Please reflect that 15th is not a through road. Please keep it that way

Topic	Comment Received
Summarizing the Feedback	7th Concession + 17th Sideroad in Happy Valley Forest needs to stay closed
15th Sideroad	Vehicles should head southbound on Dufferin down to King Vaughan Road or Kirby to get to 400. This is an alternative to 15th Sideroad connection to Highway 400.
Kingscross Classification	Kingscross should be designated a local road. Paved shoulders are not needed.
15th Sideroad	15th Sideroad = Controversial. Bypass of King City + Nobleton - good
AT	Figure 5-7 - extend the Mansions of King/Bushlands trail down to King Road
Goods Movement	Move goods movement route from Mill to 10th Concession south of King
Goods Movement	Make 17th a secondary goods movement route
King City East Lands	We noticed that the Committee of the Whole Agenda had a first draft of the Transportation Master Plan. You may not be aware that the Township and the King City East North Landowners Group, with guidance from Burnside who was acting on behalf of the Township, conducted a Class C EA for the King City East lands. It was completed in May 2018. The draft 2020 Master Plan shows an east-west connection between Keele Street via East Humber Drive to Dufferin Street (#1 on the attached image) as well as one through the King Rocks lands north of the valley (2). Both of these connections were shown in the last Master Plan but eliminated as options through the EA process. The East Humber Drive extension (1) would cross through a PSW near Dufferin Street. The approved Acorn subdivision in this area does not anticipate any permanent connection to Keele Street due to the PSW and local residents' objections. In fact, it has been quite difficult to obtain even a temporary construction access to Dufferin Street and more than 50 units. The second connection to Dufferin Street (2) was also examined in the EA and eliminated as an option due to the crossing of a redside dace inhabited watercourse and limited traffic benefit in comparison to other options. I believe there was to be a trail connection to Country Day School on an existing driveway and the existing crossing may be used as an emergency access or condominium road. I have attached a link to the Class C EA final report for your information. https://private.filesanywhere.com/mgp/fs/v.aspx?v=8a6f678b59a174beae68 I would be happy to meet with you to go over the history of the studies and approvals that eliminated the two roads crossings if you think it would be helpful. MGP, Beacon, Poulos and Chung and SKA conducted the EA. We request the draft Master Plan be updated accordingly to reflect the findings of the Class C EA for the King City East Lands.
Bushlands and Mansions of King Road Fabric	There is a concern with regard two roads drawn on the map. I have attached a marked up version of the map showing the areas of concern. 1.An apparent new road shown for the Mansions of King development. -The new road goes from Jane Street by an existing property to which reference is made locally as the "Jilek's" property and passes just south of Kingscross properties including Snowberry Lane, connecting to the sub-division which is located to the south of Kingscross/ Champlain Crescent & to the west of Manitou Drive. -This road was NOT been subject of the recent planning application & was never mentioned in the review process or LPAT appeal (January 2020). -This road appears to be the same as what was envisaged in the 1990's when the property it crosses was approved for 2 acre lots. The situation has now changed. Should a road be necessary & it is not it would need a bridge to span the wetlands behind Kingscross Drive. -The drawing of the road should be corrected. 2.An apparent in/out is drawn from the Bushland Heights development onto Jane Street to the north of the one which was considered in the planning application and a further LPAT appeal. -There was no such in/out subject of the recent planning application & none was mentioned in the LPAT appeal (November 2019).

KING TOWNSHIP – 2020 TRANSPORTATION MASTER PLAN

THE WAY FORWARD

MARCH 2020

Appendix C

DETAILED ROAD NETWORK ASSESSMENTS

Table C-1 Township of King Forecasted Population Growth Rate

Service Area	Population		Compound Annual Growth Rate
	2016	2031	
Schomberg & Lloydtown	2,900	3,100	0.5%
Nobleton	5,700	7,000	1.4%
King City	6,900	15,500	5.5%
Others	10,000	9,300	-0.5%
Total:	**25,500**	**34,900**	**2.1%**

Table C-2a Screenline Analysis - Existing (AM peak hour)

Alternative 1 - "Do Nothing"

Screenline #	Screenline Name	Street Name	Road Surface	NB/EB Direction						SB/WB Direction						Notes
				Approach Volumes - includes Heavy Vehicles (vph)	Number of Lanes	Lane Auto Capacity (vplph)	Lane Mixed Traffic Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes - includes Heavy Vehicles (vph)	Number of Lanes	Lane Capacity (vpl)	Lane Mixed Traffic Capacity (vplph)	Link Capacity (vph)	V/C Ratio	
1A	North Boundary - South of Highway 9, West of Highway 400	12th Concession	Unpaved (gravel)	8	1	700	735	735	0.01	10	1	700	735	735	0.01	
		11th Concession	Paved	20	1	700	735	735	0.03	87	1	700	735	735	0.12	
		10th Concession	Paved	5	1	700	735	735	0.01	19	1	700	735	735	0.03	
		Hwy 27	Paved	349	2	1,000	1,050	2,100	0.17	858	2	1,000	1,050	2,100	0.41	
		8th Concession	Paved	31	1	700	735	735	0.04	65	1	700	735	735	0.09	
			Screenline Total:	413	6			5,040	0.08	1,039	6	-		5,040	0.21	
1B	North Boundary - North of Highway 9, East of Highway 400	Jane Street	Paved	22	1	800	840	840	0.03	273	1	800	840	840	0.33	
		Keele Street	Paved	44	1	700	735	735	0.06	89	1	700	735	735	0.12	
		Dufferin	Paved	38	1	700	735	735	0.05	36	1	700	735	735	0.05	
			Screenline Total:	104	3			2,310	0.05	398	3	-		2,310	0.17	
2	West of Highway 400	King Road	Paved	792	2	1,000	1,050	2,100	0.38	882	2	1,000	1,050	2,100	0.42	
		Lloydtown Aurora Rd	Paved	519	1	1,000	1,050	1,050	0.49	191	1	1,000	1,050	1,050	0.18	
		Hwy 9 / Davis Dr	Paved	850	2	1,200	1,260	2,520	0.34	710	2	1,200	1,260	2,520	0.28	
			Screenline Total:	2,161	5			5,670	0.38	1,783	5	-	-	5,670	0.31	
3	West Boundary	King Road	Paved	703	1	700	735	735	0.96	580	1	700	735	735	0.79	York Region plans to widen King Road from 2 to 4 lanes between Caledon-King Townline to Highway 27 by 2032-2041.
		17th Sideroad	Paved	89	1	700	735	735	0.12	148	1	700	735	735	0.20	
		19th Sideroad / Lloydrown Aurora	Unpaved (gravel)	33	1	700	735	735	0.04	8	1	700	735	735	0.01	
		Highway 9	Paved	495	1	1,200	1,260	1,260	0.39	270	1	1,200	1,260	1,260	0.21	
			Screenline Total:	1,320	4			3,465	0.38	1,006	4	-		3,465	0.29	
4	East Boundary	King Road	Paved	895	2	900	945	1,890	0.47	1,421	2	900	945	1,890	0.75	
		15th Sideroad / Bloomington Rd	Paved	563	1	800	840	840	0.67	951	1	800	840	840	1.13	York Region plans to widen 15th Sideroad from 2 to 4 lanes between Highway 400 to Bathurst Street by 2032 to 2041. The Township and the Region should discuss and consider widening the road prior to 2032.
		17th Sideroad / Wellington Rd	Paved	400	1	1,000	1,050	1,050	0.38	118	1	1,000	1,050	1,050	0.11	
		18th Sideroad	Paved	790	1	1,000	1,050	1,050	0.75	348	1	1,000	1,050	1,050	0.33	
		19th Sideroad	Paved	63	1	700	735	735	0.09	72	1	700	735	735	0.10	
		Hwy 9/Davis Rd	Paved	1,441	2	1,200	1,260	2,520	0.57	1,993	2	1,200	1,260	2,520	0.79	
		Millers Sideroad	Paved	187	1	700	735	735	0.25	268	1	700	735	735	0.36	
		Graham Sideroad	Paved	9	1	700	735	735	0.01	24	1	700	735	735	0.03	
			Screenline Total:	4,348	10			9,555	0.46	5,195	10	-		9,555	0.54	
5	South Boundary	Hwy 27	Paved	394	1	1,000	1,050	1,050	0.38	885	1	1,000	1,050	1,050	0.84	
		Weston	Paved	71	1	1,000	1,050	1,050	0.07	809	1	1,000	1,050	1,050	0.77	
		Hwy 400	Paved	3,573	3	1,800	2,000	6,000	0.60	6,294	3	1,800	2,000	6,000	1.05	MTO plans to widen Highway 400 from 6 to 8 lanes (including 2 HOV lanes) from Major Mackenzie Drive to King Road by 2020.
		Jane Street	Paved	761	1	1,000	1,050	1,050	0.72	208	1	1,000	1,050	1,050	0.20	
		Keele Street	Paved	345	2	1,000	1,050	2,100	0.16	1,469	2	1,000	1,050	2,100	0.70	
		Dufferin Street	Paved	323	1	1,000	1,050	1,050	0.31	812	1	1,000	1,050	1,050	0.77	
			Screenline Total:	5,467	9			12,300	0.44	10,477	9	-		12,300	0.85	
6	East of Highway 400	King Road	Paved	1,145	2	1,000	1,050	2,100	0.55	1,492	2	1,000	1,050	2,100	0.71	
		Lloydtown Aurora Rd	Paved	752	1	1,000	1,050	1,050	0.72	337	1	1,000	1,050	1,050	0.32	
		Hwy 9 / Davis Dr	Paved	1,971	2	1,200	1,260	2,520	0.78	1,147	2	1,200	1,260	2,520	0.46	
			Screenline Total:	3,868	5			5,670	0.68	2,976	5	-		5,670	0.52	

Table C-2b Screenline Analysis - Existing (PM peak hour)

Alternative 1 - "Do Nothing"

Screenline #	Screenline Name	Street Name	Road Surface	NB/EB Direction						SB/WB Direction						Notes
				Approach Volumes - includes Heavy Vehicles (vph)	Number of Lanes	Lane Auto Capacity (vplph)	Lane Mixed Traffic Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes - includes Heavy Vehicles (vph)	Number of Lanes	Lane Capacity (vpl)	Lane Mixed Traffic Capacity (vplph)	Link Capacity (vph)	V/C Ratio	
1A	North Boundary - South of Highway 9, West of Highway 400	12th Concession	Unpaved (gravel)	14	1	700	735	735	0.02	6	1	700	735	735	0.01	
		11th Concession	Paved	113	1	700	735	735	0.15	87	1	700	735	735	0.12	
		10th Concession	Paved	12	1	700	735	735	0.02	10	1	700	735	735	0.01	
		Hwy 27	Paved	983	2	1,000	1,050	2,100	0.47	499	2	1,000	1,050	2,100	0.24	
		8th Concession	Paved	82	1	700	735	735	0.11	65	1	700	735	735	0.09	
			Screenline Total:	1,204	6			5,040	0.24	667	6	-		5,040	0.13	
1B	North Boundary - North of Highway 9, East of Highway 400	Jane Street	Paved	200	1	800	840	840	0.24	47	1	800	840	840	0.06	
		Keele Street	Paved	171	1	700	735	735	0.23	50	1	700	735	735	0.07	
		Dufferin	Paved	219	1	700	735	735	0.30	22	1	700	735	735	0.03	
			Screenline Total:	590	3			2,310	0.26	119	3	-		2,310	0.05	
2	West of Highway 400	King Road	Paved	832	2	1,000	1,050	2,100	0.40	895	2	1,000	1,050	2,100	0.43	
		Lloydtown Aurora Rd	Paved	197	1	1,000	1,050	1,050	0.19	464	1	1,000	1,050	1,050	0.44	
		Hwy 9 / Davis Dr	Paved	873	2	1,200	1,260	2,520	0.35	907	2	1,200	1,260	2,520	0.36	
			Screenline Total:	1,902	5			5,670	0.34	2,266	5	-		5,670	0.40	
3	West Boundary	King Road	Paved	775	1	700	735	735	1.05	694	1	700	735	735	0.94	York Region plans to widen King Road from 2 to 4 lanes between Caledon-King Townline to Highway 27 by 2032-2041.
		17th Sideroad	Paved	60	1	700	735	735	0.08	20	1	700	735	735	0.03	
		19th Sideroad / Lloydrown Aurora	Unpaved (gravel)	22	1	700	735	735	0.03	24	1	700	735	735	0.03	
		Highway 9	Paved	344	1	1,200	1,260	1,260	0.27	956	1	1,200	1,260	1,260	0.76	
			Screenline Total:	1,201	4			3,465	0.35	1,694	4	-		3,465	0.49	
4	East Boundary	King Road	Paved	1,578	2	900	945	1,890	0.83	922	2	900	945	1,890	0.49	
		15th Sideroad / Bloomington Rd	Paved	819	1	800	840	840	0.98	572	1	800	840	840	0.68	York Region plans to widen 15th Sideroad from 2 to 4 lanes between Highway 400 to Bathurst Street by 2032 to 2041. The Township and the Region should discuss and may need to consider widening the road prior to 2032.
		17th Sideroad / Wellington Rd	Paved	18	1	1,000	1,050	1,050	0.02	458	1	1,000	1,050	1,050	0.44	
		18th Sideroad	Paved	409	1	1,000	1,050	1,050	0.39	778	1	1,000	1,050	1,050	0.74	
		19th Sideroad	Paved	99	1	700	735	735	0.13	66	1	700	735	735	0.09	
		Hwy 9/Davis Rd	Paved	1,966	2	1,200	1,260	2,520	0.78	1,996	2	1,200	1,260	2,520	0.79	
		Millers Sideroad	Paved	319	1	700	735	735	0.43	261	1	700	735	735	0.36	
		Graham Sideroad	Paved	39	1	700	735	735	0.05	70	1	700	735	735	0.10	
			Screenline Total:	5,247	10			9,555	0.55	5,123	10	-		9,555	0.54	
5	South Boundary	Hwy 27	Paved	1,122	1	1,000	1,050	1,050	1.07	989	1	1,000	1,050	1,050	0.94	York Region plans to widen Highway 27 from Major Mackenzie to King Road from 2 to 4 lanes by 2022-2026.
		Weston	Paved	442	1	1,000	1,050	1,050	0.42	127	1	1,000	1,050	1,050	0.12	
		Hwy 400	Paved	6,351	3	1,800	2,000	6,000	1.06	3,976	3	1,800	2,000	6,000	0.66	MTO plans to widen Highway 400 from 6 to 8 lanes (including 2 HOV lanes) from Major Mackenzie Drive to King Road by 2020.
		Jane Street	Paved	271	1	1,000	1,050	1,050	0.26	640	1	1,000	1,050	1,050	0.61	
		Keele Street	Paved	1,576	2	1,000	1,050	2,100	0.75	363	2	1,000	1,050	2,100	0.17	
		Dufferin Street	Paved	788	1	1,000	1,050	1,050	0.75	371	1	1,000	1,050	1,050	0.35	
			Screenline Total:	10,550	9			12,300	0.86	6,466	9	-		12,300	0.53	
6	East of Highway 400	King Road	Paved	634	2	1,000	1,050	2,100	0.30	1,376	2	1,000	1,050	2,100	0.66	
		Lloydtown Aurora Rd	Paved	602	1	1,000	1,050	1,050	0.57	862	1	1,000	1,050	1,050	0.82	
		Hwy 9 / Davis Dr	Paved	1,803	2	1,200	1,260	2,520	0.72	1,917	2	1,200	1,260	2,520	0.76	
			Screenline Total:	3,039	5			5,670	0.54	4,155	5	-		5,670	0.73	

Table C-3a Screenline Analysis - Future 2031 (AM peak hour)

Alternative 2 - 2015 TMP

Screenline #	Screenline Name	Street Name	Road Surface	NB/EB Direction						SB/WB Direction						Notes
				Approach Volumes - includes Heavy Vehicles (vph)	Number of Lanes	Lane Auto Capacity (vplph)	Lane Mixed Traffic Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes - includes Heavy Vehicles (vph)	Number of Lanes	Lane Capacity (vpl)	Lane Mixed Traffic Capacity (vplph)	Link Capacity (vph)	V/C Ratio	
1A	North Boundary - South of Highway 9, West of Highway 400	12th Concession	Unpaved (gravel)	11	1	700	735	735	0.01	13	1	700	735	735	0.02	
		11th Concession	Paved	25	1	700	735	735	0.03	111	1	700	735	735	0.15	
		10th Concession	Paved	6	1	700	735	735	0.01	22	1	700	735	735	0.03	
		Hwy 27	Paved	386	2	1,000	1,050	2,100	0.18	1,214	2	1,000	1,050	2,100	0.58	
		8th Concession	Paved	36	1	700	735	735	0.05	76	1	700	735	735	0.10	
			Screenline Total:	464	6			5,040	0.09	1,436	6	-		5,040	0.28	
1B	North Boundary - North of Highway 9, East of Highway 400	Jane Street	Paved	8	1	800	840	840	0.01	620	1	800	840	840	0.74	
		Keele Street	Paved	31	1	700	735	735	0.04	90	1	700	735	735	0.12	
		Dufferin	Paved	48	1	700	735	735	0.07	47	1	700	735	735	0.06	
			Screenline Total:	87	3			2,310	0.04	757	3	-		2,310	0.33	
2	West of Highway 400	King Road	Paved	760	2	1,000	1,050	2,100	0.36	974	2	1,000	1,050	2,100	0.46	
		Lloydtown Aurora Rd	Paved	463	1	1,000	1,050	1,050	0.44	204	1	1,000	1,050	1,050	0.19	
		Hwy 9 / Davis Dr	Paved	1,151	2	1,200	1,260	2,520	0.46	1,055	2	1,200	1,260	2,520	0.42	
			Screenline Total:	2,374	5			5,670	0.42	2,233	5	-		5,670	0.39	
3	West Boundary	King Road	Paved	660	1	700	735	735	0.90	428	1	700	735	735	0.58	
		17th Sideroad	Paved	56	1	700	735	735	0.08	19	1	700	735	735	0.03	
		19th Sideroad / Lloydrown Aurora	Unpaved (gravel)	43	1	700	735	735	0.06	11	1	700	735	735	0.01	
		Highway 9	Paved	323	1	1,200	1,260	1,260	0.26	898	1	1,200	1,260	1,260	0.71	
			Screenline Total:	1,082	4			3,465	0.31	1,356	4	-		3,465	0.39	
4	East Boundary	King Road	Paved	1,113	2	900	945	1,890	0.59	1,384	2	900	945	1,890	0.73	
		15th Sideroad / Bloomington Rd	Paved	773	1	800	840	840	0.92	951	1	800	840	840	1.13	York Region plans to widen 15th Sideroad from 2 to 4 lanes between Highway 400 to Bathurst Street by 2032 to 2041. The Township and the Region should discuss and consider widening the road prior to 2032.
		17th Sideroad / Wellington Rd	Paved	447	1	1,000	1,050	1,050	0.43	85	1	1,000	1,050	1,050	0.08	
		18th Sideroad	Paved	771	1	1,000	1,050	1,050	0.73	310	1	1,000	1,050	1,050	0.30	
		19th Sideroad	Paved	63	1	700	735	735	0.09	72	1	700	735	735	0.10	
		Hwy 9/Davis Rd	Paved	1,508	2	1,200	1,260	2,520	0.60	1,916	2	1,200	1,260	2,520	0.76	
		Millers Sideroad	Paved	240	1	700	735	735	0.33	343	1	700	735	735	0.47	
		Graham Sideroad	Paved	12	1	700	735	735	0.02	31	1	700	735	735	0.04	
			Screenline Total:	4,927	10			9,555	0.52	5,092	10	-		9,555	0.53	
5	South Boundary	Hwy 27	Paved	529	2	1,000	1,050	2,100	0.25	2,004	2	1,000	1,050	2,100	0.95	It is recommended that the gravel road 10th Concession from King Road to 15th Sideroad to be paved, adding capacity and making it a more attractive north-south road alternative to Highway 27.
		Weston	Paved	85	1	1,000	1,050	1,050	0.08	1,084	1	1,000	1,050	1,050	1.03	York Region plans to widen Weston Road from 2 to 4 lanes between King Road and Teston Road by 2032-2041.
		Hwy 400	Paved	4,092	4	1,800	2,000	8,000	0.51	6,753	4	1,800	2,000	8,000	0.84	
		Jane Street	Paved	784	1	1,000	1,050	1,050	0.75	326	1	1,000	1,050	1,050	0.31	
		Keele Street	Paved	422	2	1,000	1,050	2,100	0.20	1,572	2	1,000	1,050	2,100	0.75	
		Dufferin Street	Paved	315	1	1,000	1,050	1,050	0.30	906	1	1,000	1,050	1,050	0.86	
			Screenline Total:	6,227	11			15,350	0.41	12,645	11	-		15,350	0.82	
6	East of Highway 400	King Road	Paved	1,230	2	1,000	1,050	2,100	0.59	1,677	2	1,000	1,050	2,100	0.80	
		Lloydtown Aurora Rd	Paved	513	1	1,000	1,050	1,050	0.49	340	1	1,000	1,050	1,050	0.32	
		Hwy 9 / Davis Dr	Paved	2,216	2	1,200	1,260	2,520	0.88	1,115	2	1,200	1,260	2,520	0.44	
			Screenline Total:	3,959	5			5,670	0.70	3,132	5	-		5,670	0.55	

Table C-3b Screenline Analysis - Future 2031 (PM peak hour)

Alternative 2 - 2015 TMP

Screenline #	Screenline Name	Street Name	Road Surface	NB/EB Direction						SB/WB Direction						Notes
				Approach Volumes - includes Heavy Vehicles (vph)	Number of Lanes	Lane Auto Capacity (vplph)	Lane Mixed Traffic Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes - includes Heavy Vehicles (vph)	Number of Lanes	Lane Capacity (vpl)	Lane Mixed Traffic Capacity (vplph)	Link Capacity (vph)	V/C Ratio	
1A	North Boundary - South of Highway 9, West of Highway 400	12th Concession	Unpaved (gravel)	17	1	700	735	735	0.02	8	1	700	735	735	0.01	
		11th Concession	Paved	144	1	700	735	735	0.20	87	1	700	735	735	0.12	
		10th Concession	Paved	15	1	700	735	735	0.02	12	1	700	735	735	0.02	
		Hwy 27	Paved	1,339	2	1,000	1,050	2,100	0.64	536	2	1,000	1,050	2,100	0.26	
		8th Concession	Paved	97	1	700	735	735	0.13	65	1	700	735	735	0.09	
			Screenline Total:	1,612	6			5,040	0.32	708	6	-		5,040	0.14	
1B	North Boundary - North of Highway 9, East of Highway 400	Jane Street	Paved	547	1	800	840	840	0.65	33	1	800	840	840	0.04	
		Keele Street	Paved	512	1	700	735	735	0.70	37	1	700	735	735	0.05	
		Dufferin	Paved	281	1	700	735	735	0.38	28	1	700	735	735	0.04	
			Screenline Total:	1,340	3			2,310	0.58	98	3	-		2,310	0.04	
2	West of Highway 400	King Road	Paved	924	2	1,000	1,050	2,100	0.44	863	2	1,000	1,050	2,100	0.41	
		Lloydtown Aurora Rd	Paved	210	1	1,000	1,050	1,050	0.20	408	1	1,000	1,050	1,050	0.39	
		Hwy 9 / Davis Dr	Paved	1,218	2	1,200	1,260	2,520	0.48	1,208	2	1,200	1,260	2,520	0.48	
			Screenline Total:	2,352	5			5,670	0.41	2,479	5	-		5,670	0.44	
3	West Boundary	King Road	Paved	623	1	700	735	735	0.85	651	1	700	735	735	0.89	
		17th Sideroad	Paved	19	1	700	735	735	0.03	56	1	700	735	735	0.08	
		19th Sideroad / Lloydrown Aurora	Unpaved (gravel)	28	1	700	735	735	0.04	31	1	700	735	735	0.04	
		Highway 9	Paved	898	1	1,200	1,260	1,260	0.71	323	1	1,200	1,260	1,260	0.26	
			Screenline Total:	1,568	4			3,465	0.45	1,061	4	-		3,465	0.31	
4	East Boundary	King Road	Paved	1,541	2	900	945	1,890	0.82	1,140	2	900	945	1,890	0.60	
		15th Sideroad / Bloomington Rd	Paved	819	1	800	840	840	0.98	782	1	800	840	840	0.93	York Region plans to widen 15th Sideroad from 2 to 4 lanes between Highway 400 to Bathurst Street by 2032 to 2041. The Township and the Region should discuss and consider widening the road prior to 2032.
		17th Sideroad / Wellington Rd	Paved	15	1	1,000	1,050	1,050	0.01	505	1	1,000	1,050	1,050	0.48	
		18th Sideroad	Paved	371	1	1,000	1,050	1,050	0.35	759	1	1,000	1,050	1,050	0.72	
		19th Sideroad	Paved	99	1	700	735	735	0.13	66	1	700	735	735	0.09	
		Hwy 9/Davis Rd	Paved	1,889	2	1,200	1,260	2,520	0.75	2,063	2	1,200	1,260	2,520	0.82	
		Millers Sideroad	Paved	409	1	700	735	735	0.56	335	1	700	735	735	0.46	
		Graham Sideroad	Paved	49	1	700	735	735	0.07	90	1	700	735	735	0.12	
			Screenline Total:	5,192	10			9,555	0.54	5,740	10	-		9,555	0.60	
5	South Boundary	Hwy 27	Paved	2,241	2	1,000	1,050	2,100	1.07	1,124	2	1,000	1,050	2,100	0.54	It is recommended that the gravel road 10th Concession from King Road to 15th Sideroad to be paved, adding capacity and making it a more attractive north-south road alternative to Highway 27.
		Weston	Paved	717	1	1,000	1,050	1,050	0.68	141	1	1,000	1,050	1,050	0.13	
		Hwy 400	Paved	6,810	4	1,800	2,000	8,000	0.85	4,495	4	1,800	2,000	8,000	0.56	
		Jane Street	Paved	389	1	1,000	1,050	1,050	0.37	663	1	1,000	1,050	1,050	0.63	
		Keele Street	Paved	1,679	2	1,000	1,050	2,100	0.80	440	2	1,000	1,050	2,100	0.21	
		Dufferin Street	Paved	882	1	1,000	1,050	1,050	0.84	363	1	1,000	1,050	1,050	0.35	
			Screenline Total:	12,718	11			15,350	0.83	7,226	11	-		15,350	0.47	
6	East of Highway 400	King Road	Paved	819	2	1,000	1,050	2,100	0.39	1,461	2	1,000	1,050	2,100	0.70	
		Lloydtown Aurora Rd	Paved	605	1	1,000	1,050	1,050	0.58	623	1	1,000	1,050	1,050	0.59	
		Hwy 9 / Davis Dr	Paved	1,771	2	1,200	1,260	2,520	0.70	2,162	2	1,200	1,260	2,520	0.86	
			Screenline Total:	3,195	5			5,670	0.56	4,246	5	-		5,670	0.75	

Table C-4a Screenline Analysis - Future 2031 (AM peak hour)

Alternative 3 - 2020 TMP

Screenline #	Screenline Name	Street Name	Road Surface	NB/EB Direction						SB/WB Direction						Notes
				Approach Volumes - includes Heavy Vehicles (vph)	Number of Lanes	Lane Auto Capacity (vplph)	Lane Mixed Traffic Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes - includes Heavy Vehicles (vph)	Number of Lanes	Lane Capacity (vpl)	Lane Mixed Traffic Capacity (vplph)	Link Capacity (vph)	V/C Ratio	
1A	North Boundary - South of Highway 9, West of Highway 400	12th Concession	Unpaved (gravel)	11	1	700	735	735	0.01	13	1	700	735	735	0.02	
		11th Concession	Paved	25	1	700	735	735	0.03	111	1	700	735	735	0.15	
		10th Concession	Paved	6	1	700	735	735	0.01	22	1	700	735	735	0.03	
		Hwy 27	Paved	386	2	1,000	1,050	2,100	0.18	1,214	2	1,000	1,050	2,100	0.58	
		8th Concession	Paved	36	1	700	735	735	0.05	76	1	700	735	735	0.10	
			Screenline Total:	464	6			5,040	0.09	1,436	6	-		5,040	0.28	
1B	North Boundary - North of Highway 9, East of Highway 400	Jane Street	Paved	8	1	800	840	840	0.01	620	1	800	840	840	0.74	
		Keele Street	Paved	31	1	700	735	735	0.04	90	1	700	735	735	0.12	
		Dufferin	Paved	48	1	700	735	735	0.07	47	1	700	735	735	0.06	
			Screenline Total:	87	3			2,310	0.04	757	3	-		2,310	0.33	
2	West of Highway 400	King Road	Paved	760	2	1,000	1,050	2,100	0.36	974	2	1,000	1,050	2,100	0.46	
		Lloydtown Aurora Rd	Paved	463	1	1,000	1,050	1,050	0.44	204	1	1,000	1,050	1,050	0.19	
		Hwy 9 / Davis Dr	Paved	1,151	2	1,200	1,260	2,520	0.46	1,055	2	1,200	1,260	2,520	0.42	
			Screenline Total:	2,374	5			5,670	0.42	2,233	5	-		5,670	0.39	
3	West Boundary	King Road	Paved	660	1	700	735	735	0.90	428	1	700	735	735	0.58	
		17th Sideroad	Paved	56	1	700	735	735	0.08	19	1	700	735	735	0.03	
		19th Sideroad / Lloydrown Aurora	Unpaved (gravel)	43	1	700	735	735	0.06	11	1	700	735	735	0.01	
		Highway 9	Paved	323	1	1,200	1,260	1,260	0.26	898	1	1,200	1,260	1,260	0.71	
			Screenline Total:	1,082	4			3,465	0.31	1,356	4	-		3,465	0.39	
4	East Boundary	King Road	Paved	1,113	2	900	945	1,890	0.59	1,384	2	900	945	1,890	0.73	
		15th Sideroad / Bloomington Rd	Paved	773	2	800	840	1,680	0.46	951	2	800	840	1,680	0.57	2019 TMP recommendation - York Region plans to widen 15th Sideroad from 2 to 4 lanes between Highway 400 to Bathurst Street by 2032 to 2041. The Township and the Region should discuss and consider widening the road prior to 2032.
		17th Sideroad / Wellington Rd	Paved	447	1	1,000	1,050	1,050	0.43	85	1	1,000	1,050	1,050	0.08	
		18th Sideroad	Paved	771	1	1,000	1,050	1,050	0.73	310	1	1,000	1,050	1,050	0.30	
		19th Sideroad	Paved	63	1	700	735	735	0.09	72	1	700	735	735	0.10	
		Hwy 9/Davis Rd	Paved	1,508	2	1,200	1,260	2,520	0.60	1,916	2	1,200	1,260	2,520	0.76	
		Millers Sideroad	Paved	240	1	700	735	735	0.33	343	1	700	735	735	0.47	
		Graham Sideroad	Paved	12	1	700	735	735	0.02	31	1	700	735	735	0.04	
			Screenline Total:	4,927	11			10,395	0.47	5,092	11	-		10,395	0.49	
5	South Boundary	Hwy 27	Paved	529	2	1,000	1,050	2,100	0.25	2,004	2	1,000	1,050	2,100	0.95	It is recommended that the gravel road 10th Concession from King Road to 15th Sideroad to be paved, adding capacity and making it a more attractive north-south road alternative to Highway 27.
		8th Concession	Paved	31	1	800	840	840	0.04	417	1	800	840	840	0.50	2019 TMP recommendation - pave gravel road.
		10th Concession	Paved	6	1	800	840	840	0.01	358	1	800	840	840	0.43	2019 TMP recommendation - pave gravel road.
		Weston	Paved	85	1	1,000	1,050	1,050	0.08	1,084	1	1,000	1,050	1,050	1.03	York Region plans to widen Weston Road from 2 to 4 lanes between King Road and Teston Road by 2032-2041.
		Hwy 400	Paved	4,092	4	1,800	2,000	8,000	0.51	6,753	4	1,800	2,000	8,000	0.84	
		Jane Street	Paved	784	1	1,000	1,050	1,050	0.75	326	1	1,000	1,050	1,050	0.31	
		Keele Street	Paved	422	2	1,000	1,050	2,100	0.20	1,572	2	1,000	1,050	2,100	0.75	
		Dufferin Street	Paved	315	1	1,000	1,050	1,050	0.30	906	1	1,000	1,050	1,050	0.86	
			Screenline Total:	6,264	15			19,130	0.33	13,420	15	-		19,130	0.70	
6	East of Highway 400	King Road	Paved	1,230	2	1,000	1,050	2,100	0.59	1,677	2	1,000	1,050	2,100	0.80	
		15th Sideroad	Paved	431	2	800	840	1,680	0.26	385	2	800	840	1,680	0.23	2019 TMP recommendation - York Region plans to widen 15th Sideroad from 2 to 4 lanes between Highway 400 to Bathurst Street by 2032 to 2041. The Township and the Region should discuss and consider widening the road prior to 2032.
		Lloydtown Aurora Rd	Paved	513	1	1,000	1,050	1,050	0.49	340	1	1,000	1,050	1,050	0.32	
		Hwy 9 / Davis Dr	Paved	2,216	2	1,200	1,260	2,520	0.88	1,115	2	1,200	1,260	2,520	0.44	
			Screenline Total:	4,390	7			7,350	0.60	3,517	7	-		7,350	0.48	

Table C-4b Screenline Analysis - Future 2031 (PM peak hour)

Alternative 3 - 2020 TMP

Screenline #	Screenline Name	Street Name	Road Surface	NB/EB Direction						SB/WB Direction						Notes
				Approach Volumes - includes Heavy Vehicles (vph)	Number of Lanes	Lane Auto Capacity (vplph)	Lane Mixed Traffic Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes - includes Heavy Vehicles (vph)	Number of Lanes	Lane Capacity (vpl)	Lane Mixed Traffic Capacity (vplph)	Link Capacity (vph)	V/C Ratio	
1A	North Boundary - South of Highway 9, West of Highway 400	12th Concession	Unpaved (gravel)	17	1	700	735	735	0.02	8	1	700	735	735	0.01	
		11th Concession	Paved	144	1	700	735	735	0.20	87	1	700	735	735	0.12	
		10th Concession	Paved	15	1	700	735	735	0.02	12	1	700	735	735	0.02	
		Hwy 27	Paved	1,339	2	1,000	1,050	2,100	0.64	536	2	1,000	1,050	2,100	0.26	
		8th Concession	Paved	97	1	700	735	735	0.13	65	1	700	735	735	0.09	
			Screenline Total:	1,612	6			5,040	0.32	708	6	-		5,040	0.14	
1B	North Boundary - North of Highway 9, East of Highway 400	Jane Street	Paved	547	1	800	840	840	0.65	33	1	800	840	840	0.04	
		Keele Street	Paved	512	1	700	735	735	0.70	37	1	700	735	735	0.05	
		Dufferin	Paved	281	1	700	735	735	0.38	28	1	700	735	735	0.04	
			Screenline Total:	1,340	3			2,310	0.58	98	3	-		2,310	0.04	
2	West of Highway 400	King Road	Paved	924	2	1,000	1,050	2,100	0.44	863	2	1,000	1,050	2,100	0.41	
		Lloydtown Aurora Rd	Paved	210	1	1,000	1,050	1,050	0.20	408	1	1,000	1,050	1,050	0.39	
		Hwy 9 / Davis Dr	Paved	1,218	2	1,200	1,260	2,520	0.48	1,208	2	1,200	1,260	2,520	0.48	
			Screenline Total:	2,352	5			5,670	0.41	2,479	5	-		5,670	0.44	
3	West Boundary	King Road	Paved	623	1	700	735	735	0.85	651	1	700	735	735	0.89	
		17th Sideroad	Paved	19	1	700	735	735	0.03	56	1	700	735	735	0.08	
		19th Sideroad / Lloydrown Aurora	Unpaved (gravel)	28	1	700	735	735	0.04	31	1	700	735	735	0.04	
		Highway 9	Paved	898	1	1,200	1,260	1,260	0.71	323	1	1,200	1,260	1,260	0.26	
			Screenline Total:	1,568	4			3,465	0.45	1,061	4	-		3,465	0.31	
4	East Boundary	King Road	Paved	1,541	2	900	945	1,890	0.82	1,140	2	900	945	1,890	0.60	
		15th Sideroad / Bloomington Rd	Paved	819	2	800	840	1,680	0.49	782	2	800	840	1,680	0.47	2019 TMP recommendation - York Region plans to widen 15th Sideroad from 2 to 4 lanes between Highway 400 to Bathurst Street by 2032 to 2041. The Township and the Region should discuss and consider widening the road prior to 2032.
		17th Sideroad / Wellington Rd	Paved	15	1	1,000	1,050	1,050	0.01	505	1	1,000	1,050	1,050	0.48	
		18th Sideroad	Paved	371	1	1,000	1,050	1,050	0.35	759	1	1,000	1,050	1,050	0.72	
		19th Sideroad	Paved	99	1	700	735	735	0.13	66	1	700	735	735	0.09	
		Hwy 9/Davis Rd	Paved	1,889	2	1,200	1,260	2,520	0.75	2,063	2	1,200	1,260	2,520	0.82	
		Millers Sideroad	Paved	409	1	700	735	735	0.56	335	1	700	735	735	0.46	
		Graham Sideroad	Paved	49	1	700	735	735	0.07	90	1	700	735	735	0.12	
			Screenline Total:	5,192	11			10,395	0.50	5,740	11	-		10,395	0.55	
5	South Boundary	Hwy 27	Paved	2,241	2	1,000	1,050	2,100	1.07	1,124	2	1,000	1,050	2,100	0.54	It is recommended that the gravel road 10th Concession from King Road to 15th Sideroad to be paved, adding capacity and making it a more attractive north-south road alternative to Highway 27.
		8th Concession	Paved	400	1	800	840	840	0.48	29	1	800	840	840	0.03	2019 TMP recommendation - pave gravel road.
		10th Concession	Paved	364	1	800	840	840	0.43	11	1	800	840	840	0.01	2019 TMP recommendation - pave gravel road.
		Weston	Paved	717	1	1,000	1,050	1,050	0.68	141	1	1,000	1,050	1,050	0.13	
		Hwy 400	Paved	6,810	4	1,800	2,000	8,000	0.85	4,495	4	1,800	2,000	8,000	0.56	
		Jane Street	Paved	389	1	1,000	1,050	1,050	0.37	663	1	1,000	1,050	1,050	0.63	
		Keele Street	Paved	1,679	2	1,000	1,050	2,100	0.80	440	2	1,000	1,050	2,100	0.21	
		Dufferin Street	Paved	882	1	1,000	1,050	1,050	0.84	363	1	1,000	1,050	1,050	0.35	
			Screenline Total:	13,482	15			19,130	0.70	7,266	15	-		19,130	0.38	
6	East of Highway 400	King Road	Paved	819	2	1,000	1,050	2,100	0.39	1,461	2	1,000	1,050	2,100	0.70	
		15th Sideroad	Paved	386	2	800	840	1,680	0.23	435	2	800	840	1,680	0.26	2019 TMP recommendation - York Region plans to widen 15th Sideroad from 2 to 4 lanes between Highway 400 to Bathurst Street by 2032 to 2041. The Township and the Region should discuss and consider widening the road prior to 2032.
		Lloydtown Aurora Rd	Paved	605	1	1,000	1,050	1,050	0.58	623	1	1,000	1,050	1,050	0.59	
		Hwy 9 / Davis Dr	Paved	1,771	2	1,200	1,260	2,520	0.70	2,162	2	1,200	1,260	2,520	0.86	
			Screenline Total:	3,581	7			7,350	0.49	4,681	7	-		7,350	0.64	

Table C-5a Traffic Analysis - Existing (AM peak hour), King City - Collector Roads

	NB/EB Direction					SB/WB Direction				
Road	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vpl)	Link Capacity (vph)	V/C Ratio
Bennet Drive	15	1	500	500	0.03	25	1	500	500	0.05
Burns Boulevard	39	1	500	500	0.08	46	1	500	500	0.09
Burton Grove	10	1	500	500	0.02	32	1	500	500	0.06
Collard Drive	76	1	500	500	0.15	23	1	500	500	0.05
Dennis Drive	12	1	500	500	0.02	2	1	500	500	0.00
Dennison Street	13	1	500	500	0.03	2	1	500	500	0.00
East Humber River Drive	17	1	500	500	0.03	6	1	500	500	0.01
Elizabeth Grove	29	1	500	500	0.06	86	1	500	500	0.17
Findlay Avenue	11	1	500	500	0.02	5	1	500	500	0.01
Hambly Avenue	7	1	500	500	0.01	17	1	500	500	0.03
King Cross Drive	47	1	500	500	0.09	23	1	500	500	0.05
Kingslynn Drive	6	1	500	500	0.01	10	1	500	500	0.02
Langdon Drive	10	1	500	500	0.02	6	1	500	500	0.01
Martin Street	19	1	500	500	0.04	20	1	500	500	0.04
McClure Drive	4	1	500	500	0.01	5	1	500	500	0.01
Melrose Avenue	13	1	500	500	0.03	23	1	500	500	0.05
Nicort Road	90	1	500	500	0.18	37	1	500	500	0.07
Norman Drive	12	1	500	500	0.02	13	1	500	500	0.03
Patricia Drive	12	1	500	500	0.02	42	1	500	500	0.08
Springhill Trail	63	1	500	500	0.13	82	1	500	500	0.16
Walkington Way	40	1	500	500	0.08	15	1	500	500	0.03
Warren Road	3	1	500	500	0.01	12	1	500	500	0.02
Watch Hill Road	6	1	500	500	0.01	7	1	500	500	0.01

Table C-5b Traffic Analysis - Existing (PM peak hour), King City - Collector Roads

	NB/EB Direction					SB/WB Direction				
Road	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vpl)	Link Capacity (vph)	V/C Ratio
Bennet Drive	14	1	500	500	0.03	14	1	500	500	0.03
Burns Boulevard	79	1	500	500	0.16	43	1	500	500	0.09
Burton Grove	33	1	500	500	0.07	22	1	500	500	0.04
Collard Drive	33	1	500	500	0.07	19	1	500	500	0.04
Dennis Drive	4	1	500	500	0.01	9	1	500	500	0.02
Dennison Street	11	1	500	500	0.02	7	1	500	500	0.01
East Humber River Drive	10	1	500	500	0.02	11	1	500	500	0.02
Elizabeth Grove	110	1	500	500	0.22	35	1	500	500	0.07
Findlay Avenue	13	1	500	500	0.03	19	1	500	500	0.04
Hambly Avenue	13	1	500	500	0.03	14	1	500	500	0.03
King Cross Drive	25	1	500	500	0.05	23	1	500	500	0.05
Kingslynn Drive	29	1	500	500	0.06	8	1	500	500	0.02
Langdon Drive	3	1	500	500	0.01	4	1	500	500	0.01
Martin Street	23	1	500	500	0.05	14	1	500	500	0.03
McClure Drive	9	1	500	500	0.02	9	1	500	500	0.02
Melrose Avenue	16	1	500	500	0.03	14	1	500	500	0.03
Nicort Road	37	1	500	500	0.07	42	1	500	500	0.08
Norman Drive	10	1	500	500	0.02	13	1	500	500	0.03
Patricia Drive	29	1	500	500	0.06	12	1	500	500	0.02
Springhill Trail	38	1	500	500	0.08	39	1	500	500	0.08
Walkington Way	22	1	500	500	0.04	76	1	500	500	0.15
Warren Road	8	1	500	500	0.02	12	1	500	500	0.02
Watch Hill Road	4	1	500	500	0.01	4	1	500	500	0.01

Table C-6a Traffic Analysis - Future 2031 (AM peak hour), King City - Collector Roads

	NB/EB Direction					SB/WB Direction				
Road	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vpl)	Link Capacity (vph)	V/C Ratio
Bennet Drive	28	1	500	500	0.06	47	1	500	500	0.09
Burns Boulevard	74	1	500	500	0.15	88	1	500	500	0.18
Burton Grove	19	1	500	500	0.04	62	1	500	500	0.12
Collard Drive	145	1	500	500	0.29	45	1	500	500	0.09
Dennis Drive	23	1	500	500	0.05	4	1	500	500	0.01
Dennison Street	26	1	500	500	0.05	4	1	500	500	0.01
East Humber River Drive	32	1	500	500	0.06	11	1	500	500	0.02
Elizabeth Grove	55	1	500	500	0.11	164	1	500	500	0.33
Findlay Avenue	20	1	500	500	0.04	9	1	500	500	0.02
Hambly Avenue	13	1	500	500	0.03	32	1	500	500	0.06
King Cross Drive	89	1	500	500	0.18	45	1	500	500	0.09
Kingslynn Drive	11	1	500	500	0.02	19	1	500	500	0.04
Langdon Drive	19	1	500	500	0.04	11	1	500	500	0.02
Martin Street	36	1	500	500	0.07	38	1	500	500	0.08
McClure Drive	7	1	500	500	0.01	9	1	500	500	0.02
Melrose Avenue	24	1	500	500	0.05	44	1	500	500	0.09
Nicort Road	171	1	500	500	0.34	71	1	500	500	0.14
Norman Drive	23	1	500	500	0.05	26	1	500	500	0.05
Patricia Drive	22	1	500	500	0.04	81	1	500	500	0.16
Springhill Trail	121	1	500	500	0.24	157	1	500	500	0.31
Walkington Way	76	1	500	500	0.15	29	1	500	500	0.06
Warren Road	6	1	500	500	0.01	23	1	500	500	0.05
Watch Hill Road	11	1	500	500	0.02	13	1	500	500	0.03

Table C-6b Traffic Analysis - Future 2031 (PM peak hour), King City - Collector Roads

	NB/EB Direction					SB/WB Direction				
Road	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vpl)	Link Capacity (vph)	V/C Ratio
Bennet Drive	26	1	500	500	0.05	26	1	500	500	0.05
Burns Boulevard	151	1	500	500	0.30	82	1	500	500	0.16
Burton Grove	64	1	500	500	0.13	43	1	500	500	0.09
Collard Drive	64	1	500	500	0.13	36	1	500	500	0.07
Dennis Drive	9	1	500	500	0.02	17	1	500	500	0.03
Dennison Street	21	1	500	500	0.04	13	1	500	500	0.03
East Humber River Drive	19	1	500	500	0.04	21	1	500	500	0.04
Elizabeth Grove	210	1	500	500	0.42	67	1	500	500	0.13
Findlay Avenue	25	1	500	500	0.05	36	1	500	500	0.07
Hambly Avenue	26	1	500	500	0.05	28	1	500	500	0.06
King Cross Drive	47	1	500	500	0.09	45	1	500	500	0.09
Kingslynn Drive	55	1	500	500	0.11	15	1	500	500	0.03
Langdon Drive	6	1	500	500	0.01	9	1	500	500	0.02
Martin Street	44	1	500	500	0.09	26	1	500	500	0.05
McClure Drive	17	1	500	500	0.03	17	1	500	500	0.03
Melrose Avenue	30	1	500	500	0.06	26	1	500	500	0.05
Nicort Road	71	1	500	500	0.14	81	1	500	500	0.16
Norman Drive	19	1	500	500	0.04	26	1	500	500	0.05
Patricia Drive	56	1	500	500	0.11	22	1	500	500	0.04
Springhill Trail	73	1	500	500	0.15	75	1	500	500	0.15
Walkington Way	42	1	500	500	0.08	145	1	500	500	0.29
Warren Road	15	1	500	500	0.03	23	1	500	500	0.05
Watch Hill Road	9	1	500	500	0.02	9	1	500	500	0.02

Table C-7a Traffic Analysis - Existing (AM peak hour), Nobleton - Collector Roads

			NB/EB Direction					SB/WB Direction				
Road	From	To	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vpl)	Link Capacity (vph)	V/C Ratio
8th Concession	15th Sideroad	King Road	31	1	500	500	0.06	65	1	500	500	0.13
10th Concession	near King Road		5	1	500	500	0.01	19	1	500	500	0.04
15th Sideroad	Highway 27	8th Concession	37	1	500	500	0.07	12	1	500	500	0.02
Ellis Avenue			25	1	500	500	0.05	11	1	500	500	0.02
Faris Avenue			3	1	500	500	0.01	3	1	500	500	0.01
Greenside Drive			66	1	500	500	0.13	212	1	500	500	0.42
Hawman Avenue			17	1	500	500	0.03	67	1	500	500	0.13
Hazelbury Drive			23	1	500	500	0.05	16	1	500	500	0.03
Henley Drive			2	1	500	500	0.00	6	1	500	500	0.01
Hill Farm Road			200	1	500	500	0.40	62	1	500	500	0.12
Lynwood Crescent			16	1	500	500	0.03	6	1	500	500	0.01
Mactaggart Drive			23	1	500	500	0.05	13	1	500	500	0.03
Nobleview Drive			2	1	500	500	0.00	4	1	500	500	0.01
Norman Avenue			18	1	500	500	0.04	7	1	500	500	0.01
Old King Road			24	1	500	500	0.05	25	1	500	500	0.05
Park Heights Trail			95	1	500	500	0.19	46	1	500	500	0.09
Russel Snider			10	1	500	500	0.02	7	1	500	500	0.01
Sheardown Drive (east end)			93	1	500	500	0.19	70	1	500	500	0.14
Sheardown Drive (west end)			48	1	500	500	0.10	25	1	500	500	0.05
Skyline Trail			17	1	500	500	0.03	12	1	500	500	0.02
Wellington Street			15	1	500	500	0.03	15	1	500	500	0.03
Wilsen Drive			14	1	500	500	0.03	9	1	500	500	0.02

Table C-7b Traffic Analysis - Existing (PM peak hour), Nobleton - Collector Roads

			NB/EB Direction					SB/WB Direction				
Road	From	To	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vpl)	Link Capacity (vph)	V/C Ratio
8th Concession	15th Sideroad	King Road	82	1	500	500	0.16	29	1	500	500	0.06
10th Concession	near King Road		12	1	500	500	0.02	10	1	500	500	0.02
15th Sideroad	Highway 27	8th Concession	26	1	500	500	0.05	16	1	500	500	0.03
Ellis Avenue			16	1	500	500	0.03	23	1	500	500	0.05
Faris Avenue			5	1	500	500	0.01	5	1	500	500	0.01
Greenside Drive			100	1	500	500	0.20	61	1	500	500	0.12
Hawman Avenue			61	1	500	500	0.12	52	1	500	500	0.10
Hazelbury Drive			32	1	500	500	0.06	15	1	500	500	0.03
Henley Drive			3	1	500	500	0.01	4	1	500	500	0.01
Hill Farm Road			51	1	500	500	0.10	108	1	500	500	0.22
Lynwood Crescent			13	1	500	500	0.03	7	1	500	500	0.01
Mactaggart Drive			23	1	500	500	0.05	25	1	500	500	0.05
Nobleview Drive			7	1	500	500	0.01	1	1	500	500	0.00
Norman Avenue			22	1	500	500	0.04	7	1	500	500	0.01
Old King Road			18	1	500	500	0.04	16	1	500	500	0.03
Park Heights Trail			65	1	500	500	0.13	140	1	500	500	0.28
Russel Snider			4	1	500	500	0.01	8	1	500	500	0.02
Sheardown Drive (east end)			91	1	500	500	0.18	82	1	500	500	0.16
Sheardown Drive (west end)			30	1	500	500	0.06	50	1	500	500	0.10
Skyline Trail			12	1	500	500	0.02	20	1	500	500	0.04
Wellington Street			16	1	500	500	0.03	19	1	500	500	0.04
Wilsen Drive			11	1	500	500	0.02	24	1	500	500	0.05

Table C-8a Traffic Analysis - Future 2031 (AM peak hour), Nobleton - Collector Roads

			NB/EB Direction					SB/WB Direction				
Road	From	To	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vpl)	Link Capacity (vph)	V/C Ratio
8th Concession	15th Sideroad	King Road	36	1	500	500	0.07	76	1	500	500	0.15
10th Concession	near King Road		6	1	500	500	0.01	22	1	500	500	0.04
15th Sideroad	Highway 27	8th Concession	44	1	500	500	0.09	15	1	500	500	0.03
Ellis Avenue			29	1	500	500	0.06	13	1	500	500	0.03
Faris Avenue			4	1	500	500	0.01	4	1	500	500	0.01
Greenside Drive			78	1	500	500	0.16	250	1	500	500	0.50
Hawman Avenue			20	1	500	500	0.04	79	1	500	500	0.16
Hazelbury Drive			27	1	500	500	0.05	19	1	500	500	0.04
Henley Drive			2	1	500	500	0.00	7	1	500	500	0.01
Hill Farm Road			236	1	500	500	0.47	73	1	500	500	0.15
Lynwood Crescent			19	1	500	500	0.04	7	1	500	500	0.01
Mactaggart Drive			27	1	500	500	0.05	16	1	500	500	0.03
Nobleview Drive			2	1	500	500	0.00	5	1	500	500	0.01
Norman Avenue			22	1	500	500	0.04	8	1	500	500	0.02
Old King Road			29	1	500	500	0.06	30	1	500	500	0.06
Park Heights Trail			112	1	500	500	0.22	54	1	500	500	0.11
Russel Snider			11	1	500	500	0.02	9	1	500	500	0.02
Sheardown Drive (east end)			110	1	500	500	0.22	82	1	500	500	0.16
Sheardown Drive (west end)			56	1	500	500	0.11	30	1	500	500	0.06
Skyline Trail			20	1	500	500	0.04	14	1	500	500	0.03
Wellington Street			18	1	500	500	0.04	18	1	500	500	0.04
Wilsen Drive			17	1	500	500	0.03	11	1	500	500	0.02

Table C-8b Traffic Analysis - Future 2031 (PM peak hour), Nobleton - Collector Roads

			NB/EB Direction					SB/WB Direction				
Road	From	To	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vpl)	Link Capacity (vph)	V/C Ratio
8th Concession	15th Sideroad	King Road	97	1	500	500	0.19	34	1	500	500	0.07
10th Concession	near King Road		15	1	500	500	0.03	12	1	500	500	0.02
15th Sideroad	Highway 27	8th Concession	30	1	500	500	0.06	19	1	500	500	0.04
Ellis Avenue			19	1	500	500	0.04	27	1	500	500	0.05
Faris Avenue			6	1	500	500	0.01	6	1	500	500	0.01
Greenside Drive			118	1	500	500	0.24	71	1	500	500	0.14
Hawman Avenue			72	1	500	500	0.14	61	1	500	500	0.12
Hazelbury Drive			38	1	500	500	0.08	18	1	500	500	0.04
Henley Drive			4	1	500	500	0.01	5	1	500	500	0.01
Hill Farm Road			61	1	500	500	0.12	127	1	500	500	0.25
Lynwood Crescent			15	1	500	500	0.03	8	1	500	500	0.02
Mactaggart Drive			27	1	500	500	0.05	29	1	500	500	0.06
Nobleview Drive			8	1	500	500	0.02	1	1	500	500	0.00
Norman Avenue			26	1	500	500	0.05	8	1	500	500	0.02
Old King Road			22	1	500	500	0.04	19	1	500	500	0.04
Park Heights Trail			76	1	500	500	0.15	165	1	500	500	0.33
Russel Snider			5	1	500	500	0.01	10	1	500	500	0.02
Sheardown Drive (east end)			108	1	500	500	0.22	97	1	500	500	0.19
Sheardown Drive (west end)			36	1	500	500	0.07	59	1	500	500	0.12
Skyline Trail			14	1	500	500	0.03	24	1	500	500	0.05
Wellington Street			19	1	500	500	0.04	23	1	500	500	0.05
Wilsen Drive			13	1	500	500	0.03	28	1	500	500	0.06

Table C-9a Traffic Analysis - Existing (AM peak hour), Schomberg and Lloydtown - Collector Roads

	NB/EB Direction					SB/WB Direction				
Road	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vpl)	Link Capacity (vph)	V/C Ratio
Main Street	76	1	500	500	0.15	117	1	500	500	0.23
Church Street	31	1	500	500	0.06	28	1	500	500	0.06
Cooper Drive	48	1	500	500	0.10	27	1	500	500	0.05
Dr. Kay Drive	90	1	500	500	0.18	66	1	500	500	0.13
Rose Cottage Lane	13	1	500	500	0.03	78	1	500	500	0.16
Roselena Drive	17	1	500	500	0.03	8	1	500	500	0.02

Table C-9b Traffic Analysis - Existing (PM peak hour), Schomberg and Lloydtown - Collector Roads

	NB/EB Direction					SB/WB Direction				
Road	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vpl)	Link Capacity (vph)	V/C Ratio
Main Street	135	1	500	500	0.27	73	1	500	500	0.15
Church Street	41	1	500	500	0.08	40	1	500	500	0.08
Cooper Drive	50	1	500	500	0.10	41	1	500	500	0.08
Dr. Kay Drive	84	1	500	500	0.17	161	1	500	500	0.32
Rose Cottage Lane	67	1	500	500	0.13	34	1	500	500	0.07
Roselena Drive	12	1	500	500	0.02	38	1	500	500	0.08

Table C-10a Traffic Analysis - Future 2031 (AM peak hour), Schomberg and Lloydtown - Collector Roads

	NB/EB Direction					SB/WB Direction				
Road	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vpl)	Link Capacity (vph)	V/C Ratio
Main Street	80	1	500	500	0.16	123	1	500	500	0.25
Church Street	33	1	500	500	0.07	30	1	500	500	0.06
Cooper Drive	51	1	500	500	0.10	29	1	500	500	0.06
Dr. Kay Drive	95	1	500	500	0.19	69	1	500	500	0.14
Rose Cottage Lane	14	1	500	500	0.03	83	1	500	500	0.17
Roselena Drive	18	1	500	500	0.04	8	1	500	500	0.02

Table C-10b Traffic Analysis - Future 2031 (PM peak hour), Schomberg and Lloydtown - Collector RoadsSchoml

	NB/EB Direction					SB/WB Direction				
Road	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vplph)	Link Capacity (vph)	V/C Ratio	Approach Volumes (vph)	Number of Lanes	Lane Capacity (vpl)	Link Capacity (vph)	V/C Ratio
Main Street	142	1	500	500	0.28	77	1	500	500	0.15
Church Street	43	1	500	500	0.09	42	1	500	500	0.08
Cooper Drive	53	1	500	500	0.11	43	1	500	500	0.09
Dr. Kay Drive	88	1	500	500	0.18	170	1	500	500	0.34
Rose Cottage Lane	71	1	500	500	0.14	36	1	500	500	0.07
Roselena Drive	13	1	500	500	0.03	40	1	500	500	0.08

Table C-11 Proposed Township Rural Collector Roads

Road	From	To	Rationale
17th Sideroad	Caledon King Town Line	Highway 27	• Current and estimated future AADT falls within the rural collector road traffic volume characteristics. - 2016 AADT = 2,700 - 2031 AADT = 3,600
			• Provides east-west connection between north-south arterial Regional roads (Highway 27 and Caledon King Townline).
11th Concession	Highway 9	Township's South Limits	• Current and estimated future AADT falls within the rural collector road traffic volume characteristics. - 2017 AADT = 1,300 - 2031 AADT = 1,600
			• Provides north-south connection to major arterial Regional roads (Highway 9, King Road).
8th Concession	Highway 9	Township's South Limits	• Current and estimated future AADT falls within the rural collector road traffic volume characteristics. - 2017 AADT = 1,100 - 2031 AADT = 1,500
			• Provides north-south connection to major arterial Regional roads (Highway 9, Lloydtown/Aurora Road, King Road).
			• The road is an attractive alternative north-south route to Highway 27 as it does not pass through the Village of Nobleton.
Keele Street	18th Sideroad	King Street	• Current and estimated future AADT falls within the rural collector road traffic volume characteristics. - 2017 AADT = 1,900 - 2031 AADT = 2,500
			• Road segment is an extension of the existing arterial Regional road.
Dufferin Street	18th Sideroad	Graham Sideroad	• Current and estimated future AADT falls within the rural collector road traffic volume characteristics. - 2017 AADT = 1,500 - 2031 AADT = 2,000
			• Road is an extension of an existing arterial regional road.
19th Sideroad	Dufferin Street	Bathurst Street	• Current and estimated future AADT falls within the rural collector road traffic volume characteristics. - 2017 AADT = 1,200 - 2031 AADT = 1,500
			• Road segment is an extension of the existing arterial Regional road. It provides a southern access to the Schomberg Village
Graham Sideroad	Dufferin Street	Bathurst Street	• Estimated future AADT falls within the rural collector road traffic volume characteristics. - 2017 AADT = 750 - 2031 AADT = 1,000
			• Road is connected to Bathurst Street, an arterial Regional road.
Pumphouse Road	Canal Road	Graham Sideroad	• Current and estimated future AADT falls within the rural collector road traffic volume characteristics. - 2016 AADT = 1,500 - 2031 AADT = 2,200
			• It provides a connection to a Regional Road and Bradford GO Station.

Table C-12 Proposed Urban Collector Township Roads

Village	Road	From	To
King City	Elizabeth Grove	Keele Street	Patton Street
	Patton Street	Elizabeth Grove Street	King Road
	Warren Road	Patton Street	King Road
	Lavender Valley Road	Warren Road	Spring Hill Drive
	Spring Hill Drive	Lavender Valley Road	King Road
	Stan Roots Street	King Road	Tatton Court
	Tatton Court	Stan Roots Street	Dufferin Street
	Collard Drive	Jane Street	Burns Boulevard
	Westgate Boulevard	Jane Street	Kingcross Drive
	Kingcross Drive (1)	Jane Street	Keele Street
	Street A (new development south of 15th Sideroad and east of Dufferin Street)	15th Sideroad	Dufferin Street
	Street B (new development south of 15th Sideroad and east of Dufferin Street)	Street A	15th Sideroad
Nobleton	Henry Gate	King Road	Ellis Avenue
	Ellis Avenue	Henry Gate	Highway 27
	Robinson Road	Ellis Avenue	Wikie Avenue
	Township proposed road	Robinson Road	Highway 27
	Township proposed road	King Road	Sheardown Drive
	Mactaggart Drive	Sheardown Drive	Highway 27
	Russell Snider Drive	Sheardown Drive	Mactaggart Drive
	Sheardown Drive	Russell Snider Drive	Highway 27
	Greenside Drive	King Road	Hill Farm Road
	Hill Farm Drive	Highway 27	Skyline Trail
Schomberg & Lloydtown	Lloydtown Aurora Road	10th Concession Road	Little Rebel Road
		Rebellion Way	Highway 27
	Rebellion Way	Lloydtown Aurora Road	Queen Street
	Little Rebel Road	Lloydtown Aurora Road	Rebellion Way
	Church Street	Rebellion Way	Main Street
	Main Street	Highway 27	Highway 9
	Dr. Kay Drive	Main Street	Highway 27
	Dillane Drive	Highway 27	Proctor Road
	Proctor Road	Highway 27	Dillane Drive

Note: Roads were proposed as urban collector roads if one or both of the following criteria are satisfied:

i) existing and/or future AADT fall within the urban collector road traffic volume characteristics; or

ii) road provides access to the major roads and provides connectivity to the collector road network.

(1) Roadway is classified as a signature collector.

Table C-13 Average Annual Daily Traffic (AADT) Data

				2011 TMP (GIS Data)	Traffic Counts provided by Township		2016 Road Needs Study	
FID	NAME	FROM_	TO	AADT	Survey_Year	AADT_Total	Survey_Year	2016 AADT
529	9			23460			0	
537	9			30930			0	
540	9			30470			0	
541	9			36310			0	
542	9			37570			0	
509	27			13940			0	
511	27			12530			0	
515	27			10454			0	
559	27			9954			0	
560	27			10454			0	
561	27			12550			0	
562	27			10710			0	
563	27			9330			0	
496	15th			6630			0	
497	15th			3919			0	
519	15th			5450			0	
117	15th Sideroad	56-Weston Road	East End	11			2016	164
99	15th Sideroad	27-Regional Road 27	0.68km West of Hwy 27	21			2016	95
374	15th Sideroad	56-Weston Road	0.6 km West of 56-Weston Road	350			2016	529
114	15th Sideroad	0.6 km West of 56-Weston Road	0.2 km East of Concession Road VI/V	350			2016	529
375	15th Sideroad	0.2 km East of Concession Road VI/V	Concession R oad VI/VII	350			2016	529
116	15th Sideroad	55-Jane Street	West End	11			2016	15
216	15th Sideroad	6-Keele Street	West End	343			2016	458
6	15th Sideroad	Concession Road X/XI	West End	21			2016	28
376	15th Sideroad	Concession Road VI/VII	0.4 km West of Concession Road VI/V	293			2016	235
111	15th Sideroad	0.4 km West of Concession Road VI/V	Concession Road VII/VIII	293			2016	235
377	15th Sideroad	Concession Road VII/VIII	0.6 km West of Concession Road VII/	856	2017	428	2016	642
108	15th Sideroad	0.6 km West of Concession Road VII/	27-Regional Road 27	856	2017	428	2016	642
493	15th Sideroad	6-Keele Street	West End	1520			2016	458
423	15th Sideroad	0.68 West of Highway 27	Concession Road IX/X	593			2016	95
229	16th Sideroad	38-Bathurst Street	West End	16			2016	22
105	16th Sideroad	Concession Road VII/VIII	27-Regional Road 27	293			2016	391
96	16th Sideroad	Concession Road IX/X	Concession Road X/XI	341			2016	455
369	16th Sideroad	55-Jane Street	0.6 km West of 55-Jane Street	758			2016	1011
368	16th Sideroad	0.6 km West of 55-Jane Street	56-Weston Road	758			2016	1011
210	16th Sideroad	Concession Road VI/VII	Concession Road VII/VIII	294			2016	392
93	16th Sideroad	Concession Road X/XI	Concession Road XI/XII	369			2016	492
220	16th Sideroad	53-Dufferin Street	6-Keele Street	489	2017	397	2016	386
217	16th Sideroad	6-Keele Street	55-Jane Street	836	2017	803	2016	614
98	16th Sideroad	1.0 km West of 27-Regional Road 27	Concession Road IX/X	495			2016	64
285	17th Sideroad	55-Jane Street	West End	142			2016	229
209	17th Sideroad	Concession Road VII/VIII	27-Regional Road 27	216			2016	333
280	17th Sideroad	56-Weston Road	East End	128			2016	171
213	17th Sideroad	56-Weston Road	West End	21			2016	28
379	17th Sideroad	Concession Road VII/VIII	East End	111			2016	148
208	17th Sideroad	27-Regional Road 27	Concession Road IX/X	1986			2016	2648
95	17th Sideroad	Concession Road X/XI	Concession Road XI/XII	1816			2016	2421
288	17th Sideroad	6-Keele Street	55-Jane Street	4225			2016	5632
207	17th Sideroad	Concession Road IX/X	Concession Road X/XI	1919			2016	2558
378	17th Sideroad	53-Dufferin Street	0.8 km West of 53-Dufferin Street	5176			2016	5056
289	17th Sideroad	0.8 km W of 53-Dufferin Street	6-Keele Street	5176			2016	5056
91	17th Sideroad	Concession Road XI/XII	Caledon/King Townline South	1779			2016	109
532	18th			10480			0	
533	18th			9850			0	
271	18th Sideroad	0.3 km East of Conc. Rd. VI/VII	East End	39			2016	197
381	18th Sideroad	Concession Road VI/VII	0.3 km East of Concession Road VI/V	49			2016	197
203	18th Sideroad	Concession Road X/XI	Concession Road XI/XII	61			2016	112
281	18th Sideroad	56-Weston Road	East End	32			2016	43
282	18th Sideroad	55-Jane Street	West End	54			2016	72
380	18th Sideroad	56-Weston Road	West End	21			2016	28
263	18th Sideroad	Concession Road VII/VIII	27-Regional Road 27	177			2016	236
206	18th Sideroad	Concession Road IX/X	Concession Road X/XI	57			2016	76
256	18th Sideroad	27-Regional Road 27	Concession Road IX/X	248	2017	157	2016	291
270	18th Sideroad	Concession Road VI/VII	Concession Road VII/VIII	130			2016	134
227	19th Sideroad	Concession Road X/XI	Concession Road XI/XII	141			2016	355
313	19th Sideroad	Dufferin Street	Keele Street	504			2016	764
383	19th Sideroad	Keele Street	0.3 km West of Keele Street	11			2016	15
264	19th Sideroad	Concession Road VI/VII	West End	32			2016	43
304	19th Sideroad	Hodgson Cres (W Leg)	East End Turnaround	166			2016	222
384	19th Sideroad	56-Weston Road	0.1 km West of 56-Weston Road	161			2016	215
307	19th Sideroad	55-Jane Street	West End	21			2016	28
231	19th Sideroad	Concession Road IX/X	Concession Road X/XI	177			2016	219
226	19th Sideroad	Concession Road XI\XII	Caledon/King Townline	119			2016	131
303	19th Sideroad	56-Weston Road	Hodgson Cres (W Leg)	391			2016	388
314	19th Sideroad	Newmarket Boundary	Dufferin Street	1213	2017	1153	2016	1192
232	19th Sideroad	Little Rebel Way	Conc Rd IX/X	1012			2016	592
257	19th Sideroad	27-Regional Road 27	Rebellion Way	925	2017	464	2016	481
317	2nd Concession Road	Holancin Road	Davis Road	279			2016	372
392	3rd Concession Road	Graham Sideroad	North End	10			2016	14
538	4th Concession Road	Hwy. 9	Drainage Canal	590			2016	1486
334	4th Concession Road	Hwy. 9	Drainage Canal	740			2016	1486
321	5th Concession Rd.	Woodchopper's Lane	Edward Ave.	392			2016	523
462	adelia Court	Spring Hill Drive	West to End	0			0	
324	Aileen Avenue	Edward Avenue	Strawberry Lane	388			2016	518
2	Albion Vaughan Road	Vaughan/King Townline	Queensgate Boulevard	8328			0	
385	Albion Vaughan Road	Queensgate Boulevard	Nunneville Road	8328			0	
5	Albion Vaughan Road	Nunnville Road	11-King Road	8328	2018	8488.6	0	
458	Alex Campbell Crescent	King Road	Alex Campbell Crescent	0			0	
421	Archibald Road, Pottageville	0.4 km West of Cook Drive	Cook Drive	53			2016	108
277	Archibald Road, Pottageville	Cook Drive	0.4 km West of Cook Drive	422			2016	563
275	Armstrong Crescent, Pottageville	Cook Drive	Cook Drive	171			2016	228
137	Aukland Lane, King City	McClure Drive	North End	128			2016	171
453	Austin Rumble Court	Burton Grove	South to End	0			0	
272	Bachly Crescent, Pottageville	Concession Road VI/VII	Concession Road VI/VII	94			2016	126
177	Banner Lane, King City	Elizabeth Grove	Warren Road	323			2016	431
175	Banner Lane, King City	11-King Road	0.3 km South of 11-King Road	1052			2016	1403
397	Banner Lane, King City	0.3 km South of 11-King Road	North of Bennet Drive	444			2016	592
460	Basil Ridge Road	Lavender Valley Road	North to end	0			0	
475	Bathurst			21948			0	
517	Bathurst			22103			0	
518	Bathurst			19749			0	
520	Bathurst			17819			0	
521	Bathurst			14855			0	

				2011 TMP (GIS Data)	Traffic Counts provided by Township		2016 Road Needs Study	
FID	NAME	FROM_	TO	AADT	Survey_Year	AADT_Total	Survey_Year	2016 AADT
522	Bathurst			14450			0	
523	Bathurst			16160			0	
524	Bathurst			16500			0	
525	Bathurst			17895			0	
528	Bathurst			22230			0	
530	Bathurst			24980			0	
531	Bathurst			17810			0	
534	Bathurst			17960			0	
535	Bathurst			19992			0	
536	Bathurst			969			0	
430	Ben Boy Avenue	Edward Mill Lane	Waterlily Trail	0			2016	0
176	Bennet Drive, King City	Forde Crescent	Banner Lane	532	2015	307.3	2016	307
179	Bennet Drive, King City	Warren Road	0.23 km West of Warren Road	591	2015	307.3	2016	307
395	Bennet Drive, King City	0.23 km West of Warren Road.	Forde Crescent	591			2016	307
344	Bernhardt Road	Dufferin Street	West End	334			2016	272
153	Blueberry Lane, King City	Kingsworth Road	North End Turnaround	75			2016	100
444	Bluff Trail	McTaggart Drive	HillFarm Road	0			2016	0
448	Bri Way	Siena Drive	Robert Berry Crescent	0			0	
247	Brownsville Court, Schomberg	Western Avenue	South End Cul-de-Sac	171			2016	47
426	Brule Trail, Carrying Pl.	56-Weston Road	Simcoe Road	187	2017	171	2016	123
299	Brule Trail, Carrying Pl.	Simcoe Road	West End Turnaround	187	2017	171	2016	123
120	Burns Blvd., King City	Findlay Avenue	North End Turnaround	157	2019	1107	2016	290
119	Burns Boulevard, King City	Station Road	Findlay Avenue	911	2019	1107	2016	290
212	Burrows Road	56-Weston Road	56-Weston Road	5			2016	7
194	Burton Grove, King City	6-Keele Street	Patricia Drive	535	2017	440	2016	497
483	Burton Grove, King City	6-Keele Street	Patricia Drive	1330	2017	440	2016	497
45	Cain Court, Nobleton	Hazelbury Drive	West End Cul-de-Sac	107			2016	143
223	Caledon King Townline North	19th Sideroad	Hwy. 9	96			2016	1492
4	Caledon King Townline South	11-King Road	Columbia Way	3645	2015	6264.2	0	
3	Caledon King Townline South	Columbia Way	12th Concession	3124	2015	6264.2	0	
90	Caledon King Townline South	12th Concession	17th Sideroad	4142			2016	6265
134	Cambria Place, King City	McClure Drive	East End	43			2016	58
181	Cannen Court, King City	Warren Road	West End	161			2016	215
138	Carmichael Crescent, King City	Keele Street	East End	556			2016	742
298	Carrying Place Trail	56-Weston Road	Brule Trail	348			2016	464
243	Castlewood Avenue, Schomberg	Church Street	Elmwood Avenue	167			2016	223
218	Cavell Avenue	6-Keele Street	West End	308			2016	411
23	Cedarwood Crescent, Nobleton	North End	South End Cul-de-Sac	469			2016	220
237	Center Street, Lloydtown	0.1 km West of Rebellion Way	0.2 km West of Rebellion Way	16			2016	23
418	Centre Street, Lloydtown	Rebellion Way	0.1 km West of Rebellion Way	86			2016	23
238	Centre Street, Lloydtown	Rebellion Way	Church Street	216			2016	53
351	Centre View Avenue, Laskey	56-Weston Road	0.1 km East of 56-Weston Road	128			2016	171
388	Centre View Avenue, Laskey	0.1 km East of 56-Weston Road	Prince Adam Court	128			2016	171
37	Chamberlain Court, Nobleton	Sheardown Drive	South End Cul-de-Sac	96			2016	128
150	Champlain Crescent, King City	Kingscross Drive	South End Turnaround	43			2016	58
442	Chapel Gully Trail	Bluff Trail	Hill Farm Road	0			2016	0
123	Charles Street, King City	11-King Road	Melrose Avenue	259			2016	346
145	Chelsea Lane, King City	Chelsea Lane	West End Turnaround	32			2016	43
144	Chelsea Lane, King City	Kingscross Drive	North East Turnaround	96			2016	128
49	Chinook Drive, Nobleton	Hawman Avenue	North End	70			2016	94
46	Chinook Drive, Nobleton	11-King Road	Hawman Avenue	580			2016	774
456	Chuck Ormsby Crescent	Richard Serra Court	Sculptors Gate	0			0	
427	Church Street, Lloydtown	Western Avenue	Main Street	167	2019	828	2016	628
236	Church Street, Lloydtown	Rebellion Way	Western Avenue	1897	2019	828	2016	271
279	Churchill Avenue	56-Weston Road	West End	257			2016	343
470	Claudview Street	West Orchard Crescent	Tatton Court	0			0	
197	Clearview Cres., King City	McBride Cres.	Elizabeth Grove	324			2016	432
198	Clearview Crescent (N Leg), King Ci	6-Keele Street	McBride Crescent	324			2016	432
352	Collard Drive	55-Jane Street	1.5 km East of 55-Jane Street	636			2016	102
401	Collard Drive, King City	Burns Boulevard	0.2 km West of Burns Boulevard	636	2017	492	2016	102
11	Conc Road IX/X	Vaughan/King Boundary	11-King Road	517	2017	229	2016	690
10	Conc Road IX/X	11-King Road	15th Sideroad	419	2017	229	2016	385
267	Conc Road VI/VII	16-Lloydtown/Aurora Road	18th Sideroad	277			2016	983
268	Conc Road VI/VII	16-Lloydtown/Aurora Road	19th Sideroad	195			2016	642
112	Conc Road VI/VII	11-King Road	15th Sideroad	241			2016	322
80	Conc Road VI/VII	11-King Road	South End	21			2016	28
262	Conc Road VII/VIII	18th Sideroad	0.35 km S of 16-Lloydtown/Aurora Ro	638			2016	1141
386	Conc Road VII/VIII	0.35 km S of 16-Lloydtown/Aurora Ro	16-Lloydtown/Aurora Road	820			2016	1141
296	Conc Road VII/VIII	16-Lloydtown/Aurora Road	Highway 9	514			2016	686
110	Conc Road VII/VIII	15th Sideroad	16th Sideroad	669			2016	892
76	Conc Road VII/VIII	11-King Road	South End	136			2016	150
109	Conc Road VII/VIII	11-King Road	15th Sideroad	1225	2017	1095	2016	837
261	Conc Road VII/VIII	17th Sideroad	18th Sideroad	530			2016	128
106	Conc Road VII/VIII	16th Sideroad	17th Sideroad	525			2016	101
9	Conc Road X/XI	11-King Road	South End	40			2016	54
94	Conc Road X/XI	16th Sideroad	17th Sideroad	281			2016	375
8	Conc Road X/XI	11-King Road	2.3 km North of 11-King Road	370			2016	134
389	Conc. Road II/III	2.6 km N. of 18th Sideroad	Hwy. 9	444	2017	1927	2016	436
97	Conc. Road IX/X	15th Sideroad	16th Sideroad	175			2016	234
205	Conc. Road IX/X	17th Sideroad	18th Sideroad	75			2016	100
204	Conc. Road IX/X	16th Sideroad	17th Sideroad	154			2016	151
233	Conc. Road IX/X	Queen Street	Hwy. 9	288			2016	214
230	Conc. Road IX/X	18th Sideroad	19th Sideroad	268			2016	146
211	Conc. Road VI/VII	16th Sideroad	North End	83			2016	111
266	Conc. Road VI/VII	18th Sideroad	South End	143			2016	191
81	Conc. Road VI/VII	Vaughan/King Townline	North End	21			2016	28
113	Conc. Road VI/VII	15th Sideroad	16th Sideroad	474			2016	322
201	Conc. Road X/XI	17th Sideroad	1.5 km North of 17th Sideroad	732	2017	1227	2016	1226
7	Conc. Road X/XI	2.3 km North of 11-King Road	16th Sideroad	266			2016	355
202	Conc. Road X/XI	1.5 km North of 17th Sideroad	19th Sideroad	703			2016	938
228	Conc. Road X/XI	19th Sideroad	Hwy. 9	741			2016	412
224	Conc. Road XI/XII	18th Sideroad	19th Sideroad	235			2016	339
92	Conc. Road XI/XII	16th Sideroad	17th Sideroad	254			2016	339
366	Conc. Road XI/XII	Caledon King Townline South	16th Sideroad	342			2016	456
225	Conc. Road XI/XII	19th Sideroad	Hwy. 9	225	2017	254.5	2016	153
200	Conc. Road XI/XII	17th Sideroad	18th Sideroad	275			2016	112
422	Cook Drive, Pottageville	0.95 km South of 16-Lloydtown/Auror	Bachly Crescent	128			2016	275
273	Cook Drive, Pottageville	16-Lloydtown/Aurora Road	0.95 km South of 16-Lloydtown/Auror	905			2016	922
360	Cooper Drive, Schomberg	0.22 km North of Main Street	0.56 km of Main Street	558	2015	1023.6	2016	1024
420	Cooper Drive, Schomberg	0.56 km North of Main Street	Dr. Kay Drive	558	2015	1023.6	2016	1024
416	Cooper Drive, Schomberg	Main Street	0.22 km North of Main Street	703	2015	1023.6	2016	1024
157	Cranberry Lane, King City	Kingscross Drive	North End Turnaround	54			2016	72
58	Crestview Road, Nobleton	Parkview Drive	180 m South End Checkerboard	234			2016	312
66	Cross Avenue, Nobleton	Elizabeth Drive	Welland Avenue	122			2016	163
192	Crossley Court, King City	Patricia Drive	North End	182			2016	243
139	Curran Court, King City	Carmichael Crescent	South End Cul-de-sac	128			2016	171
158	Curtis Crescent, King City	McClure Drive	McClure Drive	425			2016	567
259	Cutler Court, Schomberg	Maynard Drive	South End Cul-de-Sac	54			2016	72
278	Cutting Crescent, Pottageville	Archibald Road	Archibald Road	259			2016	139

				2011 TMP (GIS Data)	Traffic Counts provided by Township		2016 Road Needs Study	
FID	NAME	FROM_	TO	AADT	Survey_Year	AADT_Total	Survey_Year	2016 AADT
329	Davis Road	South Canal Bank Rd.	2nd Concession Road	289			2016	386
325	Davis Road	2nd Concession Road	Schomberg River	289			2016	386
287	Dearbourne Avenue East	6-Keele Street	West End	75			2016	100
286	Dearbourne Avenue East	55-Jane Street	East End Turnaround	96			2016	128
359	Dennis Drive, King City	Findlay Avenue	Station Road	306	2017	162	2016	408
399	Dennison Street, King City	East Humber Drive	0.2 km South of East Humber Drive	90	2017	201	2016	132
165	Dennison Street, King City	6-Keele Street	0.8 km East of 6-Keele Street	426	2017	201	2016	132
172	Dew Street, King City	William Street	King Street	152			2016	203
168	Dew Street, King City	William Street	West End	152			2016	203
357	Di Nardo Court, King City	Carmichael Crescent	West End	75			2016	100
53	Diana Drive	27-Regional Road 27	West End Checkerboard	268			2016	50
39	Dobson Court, Nobleton	Sheardown Drive	North End Cul-de-Sac	64			2016	86
173	Doctors Lane, King City	11-King Road	South End	225			2016	300
370	Dr. Jones Drive, Schomberg	Cooper Drive	Cooper Drive	342			2016	456
361	Dr. Kay Drive, Schomberg	0.1 km East of Main Street	27-Regional Road 27	2440	2017	2628	2016	2510
419	Dr. Kay Drive, Schomberg	Main Street	0.1 km East of Main Street	2668	2017	2628	2016	2510
564	Dr. Kay Drive, Schomberg	0.1 km East of Main Street	27-Regional Road 27	2668	2017	2628	2016	2510
499	Dufferin			7709			0	
550	Dufferin			6550			0	
551	Dufferin			4501			0	
552	Dufferin			5210			0	
554	Dufferin			8370			0	
312	Dufferin Street	16-Lloydtown/Aurora Road	2.6 km North of 16-Lloydtown/Aurora	1000			2016	1333
341	Dufferin Street	King Street	Emma Road	1756	2017	1532	2016	1895
342	Dufferin Street	Emma Road	Juliana Road	1756			2016	1895
362	Dufferin Street	Juliana Road	Graham Sideroad	1756			2016	1895
391	Dufferin Street	Miller's Sideroad	0.7 km North of Miller's Sideroad	1756			2016	1618
340	Dufferin Street	0.7 km N. of Miller's Sideroad	King Street	1756			2016	1618
549	Dufferin Street	16-Lloydtown/Aurora Road	2.6 km North of 16-Lloydtown/Aurora	1580			2016	1333
337	Dufferin Street	Hwy. 9	Miller's Sideroad	1622			2016	1253
100	Earlwood Cres., Nobleton Lakes	Nobleton Lakes Drive	South End Cul-de-Sac	86			2016	115
393	East Gwillimbury/King Townline	77-Queensville Sideroad	Schomberg River	470			2016	1025
163	East Humber Drive, King City	6-Keele Street	East End	775	2017	257	2016	1033
367	Eden Valley Drive	Fairfield Drive	Fairfield Drive	147			2016	196
323	Edward Avenue	5thConcession Road	West End	37			2016	50
322	Edward Avenue	5th Concession Rd.	Strawberry Lane	492			2016	656
265	Edward Pottage Crescent, Pottagevil	16-Lloydtown/Aurora Road	16-Lloydtown/Aurora Road	161			2016	215
248	Edwards Mill Lann, Schomberg	Church Street	North End	11			2016	15
64	Elizabeth Drive, Nobleton	Cross Avenue	North End	32			2016	43
63	Elizabeth Drive, Nobleton	11-King Road	Cross Avenue	186			2016	248
190	Elizabeth Grove, King City	6-Keele Street	0.5 km East of 6-Keele Street	675	2019	992	2016	900
191	Elizabeth Grove, King City	Patricia Drive	North of Banner Road	135	2019	992	2016	180
55	Ellis Avenue, Nobleton	27-Regional Road 27	Wellington Street	807			2016	1076
13	Ellis Avenue, Nobleton	Wellington Street	Henry Street	912	2019	440	2016	1216
14	Ellis Avenue, Nobleton	Henry Street	West End Barricade	402	2019	440	2016	536
79	Elm Pine Trail	Mill Road	West End	43			2016	153
245	Elmwood Avenue, Schomberg	Western Avenue	Castlewood Avenue	78			2016	104
345	Emma Road	Dufferin Street	West End	167			2016	223
222	Eversley Hall	Fairfield Drive	East End Turnaround	86			2016	115
221	Fairfield Drive	53-Dufferin Street	53-Dufferin Street	416			2016	555
17	Faris Avenue, Nobleton	Wellington Street	0.3 km West	195	2018	129.4	2016	260
408	Faris Avenue, Nobleton	Ellis Avenue	0.1 km East	138	2018	129.4	2016	184
440	Farm Hill Road	553m East of Goodfellow Cres.	Skyline Trail	0			2016	0
363	Farmcrest Court, Nobleton	Woodhill Avenue	West End Cul-de-Sac	64			2016	86
118	Findlay Avenue, King City	Burns Boulevard	Burns Boulevard	198	2016	254	2016	264
174	Fisher Street, King City	11-King Road	South End	214			2016	286
219	Fog Road	Cavell Avenue	North to end	161			2016	147
178	Forde Cres., King City	Bennet Drive	0.3 km East of Bennet Drive	214			2016	286
396	Forde Cres., King City	0.3 km East of Bennet Drive	Bennet Drive	214			2016	286
73	Forestave Crescent, Nobleton	Noblewood Drive	East End Turnaround	43			2016	58
414	Gilbert Fuller Dr	Woodhill Avenue	South End Checkerboard	27			2016	36
135	Gillham Circle, King City	McClure Drive	West End	43			2016	58
338	Glenville Road	Hwy. 9	3rd Conc. Rd.	56	2017	1927	2016	75
425	Goodfellow Crescent, Nobleton	Hill Farm Road W. Jct.	290m west of Hill Farm Road	393			2016	524
69	Goodfellow Crescent, Nobleton	290m west of Hill Farm Rd. W. Jct.	Hill Farm Road E. Jct.	381			2016	508
349	Graham Sideroad	Dufferin Street	West End	167	2017	743	2016	223
354	Graham Sideroad	Pumphouse Road	38-Bathurst Street	1583	2017	743	2016	1344
348	Graham Sideroad	Dufferin Street	Pumphouse Road	2060	2017	743	2016	1344
405	Greenside Drive, Nobleton	0.46 km North of 11-King Road	Hill Farm Road	1181	2017	1879.7	2016	1912
70	Greenside Drive, Nobleton	11-King Road	0.46 km North	2380	2017	1879.7	2016	1912
129	Hambley Street, King City	Norman Drive	0.14 km South of Norman Drive	225	2017	250	2016	300
131	Hambley Street, King City	30 m N. of Humber Cres.	50 m S. of Humber Cres.	225	2017	250	2016	300
400	Hambly Street, King City	50 m S. of Humber Cres.	South End Cul-de-sac	54	2017	250	2016	72
48	Hawman Avenue, Nobleton	Chinook Drive	Chinook Drive	166	2018	1006.4	2016	222
47	Hawman Avenue, Nobleton	Chinook Drive	East End Turnaround	570	2018	1006.4	2016	760
415	Hawthorne Valley Road, Nobleton	Woodhill Avenue	South End Cul-de-sac	634			2016	846
50	Hazelbury Drive, Nobleton	Hawman Drive	Wilsen Road	308	2017	449	2016	381
44	Hazelbury Drive, Nobleton	Wilsen Road	Sheardown Drive	308	2017	449	2016	381
51	Henley Drive, Nobleton	Hawman Drive	Wilsen Road	98	2018	73.2	2016	131
12	Henry Gate, Nobleton	Ellis Avenue	11-King Road	421			2016	562
159	Heritage Street, King City	6-Keele Street	Hambly Street	364			2016	486
54	Hilda Road	Diana Drive	North End Turnaround	54			2016	72
68	Hill Farm Road, Nobleton	Greenside Drive	North End	629	2017	2112	2016	1654
60	Hill Farm Road, Nobleton	27-Regional Road 27	Greenside Drive	3498	2017	2112	2016	1654
103	Hilliard Grove, Nobleton Lakes	Loch Erne Lane	Northwest End Cul-de-Sac	86			2016	115
20	Hillside Drive, Nobleton	Nobleview Drive	West End	16			2016	22
21	Hillside Drive, Nobleton	Cedarwood Crescent	Nobleview Drive	569			2016	70
305	Hodgson Avenue, Carrying Pl	19th Sideroad	19th Sideroad	225			2016	300
316	Holancin Road	Hwy. 9	2nd Concession Road	279			2016	163
35	Holden Drive, Nobleton	McTaggart Drive	North End	32			2016	43
36	Holden Drive, Nobleton	0.26 km North of Sheardown Drive	McTaggart Drive	220			2016	294
411	Holden Drive, Nobleton	Sheardown Drive	0.26 km North of Sheardown Drive	283			2016	378
184	Hollingworth Cres., King City	Patton St.	West End	54			2016	72
187	Hollingworth Cres., King City	Patton St.	Kingslynn Drive	120			2016	160
72	Hollywood Crescent, Nobleton	0.13 km East of Noblewood Drive	East End Turnaround	236			2016	315
406	Hollywood Crescent, Nobleton	Noblewood Drive	0.13 km East of Noblewood Drive	393			2016	524
167	Hoop Street, King City	11-King Road	North End	54			2016	72
132	Humber Crescent, King City	Hambly Street	Hambly Street	235			2016	314
164	Humber Valley Cres., King City	East Humber Drive	East Humber Drive	452			2016	603
126	James Street, King City	Charles Street	John Street	134			2016	179
486	Jane			7990			0	
487	Jane			6034			0	
491	Jane			6349			0	
492	Jane			7540			0	
543	Jane			1780			0	
544	Jane			1663			0	
545	Jane			8826			0	
555	Jane			5949			0	
556	Jane			2819			0	

				2011 TMP (GIS Data)	Traffic Counts provided by Township		2016 Road Needs Study	
FID	NAME	FROM_	TO	AADT	Survey_Year	AADT_Total	Survey_Year	2016 AADT
319	Jane Street	Hwy 9	South Canal Bank Road	0			2016	648
320	Jane Street	South Canal Bank Road	Woodchopper's Lane	0			2016	870
59	Janett Avenue, Nobleton	Crestview Road	East End Cul-de-Sac	96			2016	128
161	Jenkinson Grove, King City	Carmichael Crescent	Tawes Trail	153			2016	204
371	Jessop Avenue, Schomberg	Cooper Drive	Cooper Drive	342			2016	456
125	John Street, King City	11-King Road	Melrose Avenue	144			2016	192
347	Julianna Road	Dufferin Street	West End	167			2016	223
67	Kaake Road, Nobleton	Hill Farm Road	South End Cul-de-Sac	54			2016	72
480	Keele			9120			0	
481	Keele			9450			0	
482	Keele			8950			0	
484	Keele			8980			0	
494	Keele			4080			0	
495	Keele			3145			0	
498	Keele			10190			0	
339	Keele Street	Strawberry Lane	King Street	1157			2016	1543
335	Keele Street	Drainage Canal	Strawberry Lane	1065			2016	1420
333	Keele Street	19th Sideroad	31-Regional Road 31	1273			2016	1697
539	Keele Street	19th Sideroad	31-Regional Road 31	1450			2016	1697
310	Keele Street	Kettleby Road	19th Sideroad	1790			2016	2090
309	Keele Street	16-Lloydtown/Aurora Road	Kettleby Road	1577	2017	1870	2016	1755
107	Keewaydin Drive	15th Sideroad	North End Turnaround	150			2016	200
27	Kehoe Court, Nobleton	Russel Snider Drive	East End Cul-de-Sac	64			2016	86
143	Keri Court, King City	Kingscross Drive	South End Turnaround	16			2016	22
311	Kettleby Road	Concession Road III/IV	0.8 km West ofConcession Road III/I	708	2018	940.2	2016	944
308	Kettleby Road, Kettleby	Kettleby West Limit	Kettleby East Limit	787	2018	940.2	2016	1049
476	King			24889			0	
477	King			21394			0	
478	King			23020			0	
479	King			18405			0	
485	King			18690			0	
488	King			25842			0	
489	King			22120			0	
490	King			23400			0	
500	King			14930			0	
501	King			13443			0	
503	King			14830			0	
506	King			14334			0	
508	King			12470			0	
510	King			13160			0	
512	King			11355			0	
513	King			12709			0	
514	King			12317			0	
171	King Boulevard, King City	11-King Road	North End	317			2016	423
283	King Hills Lane	55-Jane Street	Spruce Hill Road	64			2016	86
343	King Street	Keele Street	Dufferin Street	1157			2016	975
215	King Summit Road	55-Jane Street	East End Turnaround	161			2016	215
149	Kings Cross Drive, King City	Manitou Drive	Watch Hill Road	677	2017	631	2016	681
155	Kings Cross Drive, King City	Watch Hill Road	Westgate Blvd.	716	2017	631	2016	681
290	Kings View Cres., Snowball	17th Sideroad	East/West Turnaround	214			2016	286
140	Kingscross Drive, King City	6-Keele Street	Manitou Drive	977	2017	631	2016	1303
186	Kingslynn Drive, King City	Patton Street	Banner Street	380	2017	294	0	
185	Kingslynn Drive, King City	Patton Street	West End	107	2017	294	2016	294
214	Kingswood Drive	55-Jane Street	East End	64			2016	86
152	Kingsworth Road, King City	Westgate Blvd	Watch Hill Road	177			2016	236
18	Kinsley Street, Nobleton	Faris Avenue	11-King Road	138			2016	184
291	Lake Road, Snowball	Kings View Crescent	South End	11			2016	15
452	Langdon Drive	132m N. of Walkington Way	Burns Boulevard	0	2017	179	0	
122	Langdon Drive	Walkington Way	North End	140	2017	179	2016	278
84	Laskay Mills Drive, Laskey	56-Weston Road	East End Cul-de-sac	182			2016	243
459	Lavender Valley Road	Warren Road	Spring Hill Drive	0			0	
465	Lilly Valley Crescent	Nicort Road	Nicort Road	0			0	
234	Little Rebel Road, Lloydtown	19th Sideroad	Rebellion Way	1012			2016	592
546	Lloydtown-Aurora			8350			0	
547	Lloydtown-Aurora			8031			0	
548	Lloydtown-Aurora			11660			0	
565	Lloydtown-Aurora			3894			0	
102	Loch Erne Lane, Nobleton Lakes	Nobleton Lakes Drive	North End Cul-de-Sac	239			2016	319
142	Lockhart Lane, King City	Kingscross Drive	North End Turnaround	54			2016	72
356	Lorne Street, Kettleby	Kettleby Road	North End	21			2016	83
403	Lynwood Crescent, Nobleton	Hill Farm Road	South End	283	2019	210	2016	378
61	Lynwood Crescent, Nobleton	11-King Road	460 m North	350	2019	210	2016	467
295	Magnum Road, Schomberg	Proctor Road	East End Turnaround	819			2016	1092
293	Main Street, Schomberg	Church Street	Dr. Kay Drive	2590	2016	2242.8	2016	3453
249	Main Street, Schomberg	27-Regional Road 27	Church Street	2561	2016	2242.8	2016	3414
292	Main Street, Schomberg	Dr. Kay Drive	Highway 9	2986	2016	2242.8	2016	3980
147	Manitou Drive, King City	Manitou Drive	East End Cul-de-sac	54			2016	167
148	Manitou Drive, King City	0.4 km South of Kingscross Drive	South End Turnaround	161			2016	167
146	Manitou Drive, King City	Kingscross Drive	0.4 km South of Kingscross Drive	354			2016	167
429	Mapleton Mill Drive	Waterlily Trail	Waterlily Trail	0			2016	593
372	Marchant Circle, Schomberg	Dr. Jones Drive	South End	118			2016	158
251	Marlynn Drive, Schomberg	Moore Park Drive	North End Cul-de-Sac	43			2016	58
127	Martin Street, King City	Melrose Avenue	180 m North of Melrose Avenue	268	2018	356.1	2016	358
130	Martin Street, King City	180 m North of Melrose Avenue	Hambly Street	268	2018	356.1	2016	358
258	Maynard Drive, Schomberg	27-Regional Road 27	Moore Park Drive	574			2016	766
195	McBride Cres., King City	Elizabeth Grove	Patricia Drive	281			2016	375
398	McBride Cres., King City	Burton Grove	Patricia Drive	281			2016	375
133	McClure Drive, King City	6-Keele Street	6-Keele Street	714	2015	168.1	2016	168
409	McCutcheon Avenue, Nobleton	Sheardown Drive	0.14 km North	647			2016	863
41	McCutcheon Avenue, Nobleton	0.14 km North of Sheardown Drive	McTaggart Drive	1356			2016	1808
42	McCutcheon Avenue, Nobleton	McTaggart Drive	North End Cul-de-Sac	21			2016	28
252	McGuire Court, Schomberg	Roselena Drive	South End Cul-de-Sac	75			2016	100
141	McKellar Lane, King City	Kingscross Drive	North End Turnaround	27			2016	36
437	McTaggart Drive, Nobleton	West Roundabout	East Roundabout	0	2018	2537.5	2016	0
438	McTaggart Drive, Nobleton	Highway 27	West Roundabout	0	2018	2537.5	2016	0
33	McTaggart Drive, Nobleton	Sheardown Drive	0.32 km North of Sheardown Drive	222	2017	602	2016	481
34	McTaggart Drive, Nobleton	0.32 km North of Sheardown Drive	27-Regional Road 27	930	2017	602	2016	481
124	Melrose Avenue, King City	John Street	West End	244	2018	334.9	2016	326
22	Midway Court, Nobleton	Hillside Drive	South End Cul-de-Sac	59			2016	32
254	Mill Dam Court, Schomberg	Roselena Drive	North End Cul-de-Sac	193			2016	258
78	Mill Road	Vaughan/King Townline	Elm Pine Trail	182	2018	567.1	2016	500
77	Mill Road	Elm Pine Trail	11-King Road	209	2018	567.1	2016	500
83	Mill Street,Laskey	56-Weston Road	Second Street	54			2016	72
353	Miller's Sideroad	38-Bathurst Street	Dufferin Street	2993	2018	5432.8	2016	1057
250	Moore Park Drive, Schomberg	Main Street	South End Cul-de-Sac	547			2016	730
274	Munshaw Court, Pottageville	Cook Drive	South End Cul-de-Sac	54			2016	53
390	Newmarket/King Townline	38-Bathurst Street	0.8 km North of 38-Bathurst Street	17084			2016	100
464	Nicort Road	Spring Hill Drive	Dufferin Street	0	2018	1006.7	0	
101	Nobleton Lakes Drive	27-Regional Road 27	East End Cul-de-Sac	722			2016	963

				2011 TMP (GIS Data)	Traffic Counts provided by Township		2016 Road Needs Study	
FID	NAME	FROM_	TO	AADT	Survey_Year	AADT_Total	Survey_Year	2016 AADT
19	Nobleview Drive, Nobleton	11-King Road	North End	743	2017	103	2016	256
71	Noblewood Drive, Nobleton	Greenside Drive	Greenside Drive	1160			2016	1547
1	Norcliffe Drive	Fairfield Drive	North End Turnaround	12			2016	16
62	Norman Avenue, Nobleton	27-Regional Road 27	Lynwood Crescent	272	2018	318.7	2016	292
128	Norman Drive, King City	6-Keele Street	Martin Street	302	2017	252.9	2016	403
315	Old Bathurst Street	0.8 km North of 38-Bathurst Street	19th Sideroad	75			2016	100
86	Old Church Road, Laskey	56-Weston Road	South End	107			2016	26
115	Old Forge Drive, Laskey	56-Weston Road	West End Cul-de-sac	54			2016	72
75	Old King Road, Nobleton	27-Regional Road 27	11-King Road	327	2018	528.1	2016	436
382	Old Regional Road 16	16-Lloydtown/Aurora Road	16-Lloydtown/Aurora Road	86			0	
387	Old Regional Road 16	16-Lloydtown/Aurora Road	16-Lloydtown/Aurora Road	5			2016	7
26	O'Neil Court, Nobleton	Russel Snider Drive	East End Cul-de-Sac	64			2016	86
57	Parkview Drive, Nobleton	27-Regional Road 27	150 m East	317			2016	423
196	Patricia Dr., King City	Clearview Drive	Elizabeth Grove	297	2016	372.2	2016	396
193	Patricia Drive, King City	Elizabeth Grove	Warren Road	494	2016	372.2	2016	659
199	Patricia Drive, King City	Clearview Cres.	McBride Cres.	324	2016	372.2	2016	432
183	Patton Street, King City	11-King Road	Kingslynn Drive	906			2016	1208
188	Patton Street, King City	Kingslynn Drive	Elizabeth Grove	748			2016	997
136	Pellatt Grove, King City	McClure Drive	East End	54			2016	72
87	Prince Adam Court, Laskey	North End	South End	128	2017	492	2016	171
294	Proctor Road, Schomberg	27-Regional Road 27	East End Turnaround	1605			2016	2140
447	Proposed Rfoad 8	Station Road	North to end	0			0	
434	Proposed Road 1	Tidnish Crescent	South End	0			2016	0
435	Proposed Road 2	Bluff Trail	Hill Farm Road	0			2016	329
436	Proposed Road 3	Bluff Trail	Hill Farm Road	0			2016	0
439	Proposed Road 4	McTaggart Drive	Tidnish Crescent	0			2016	458
449	Proposed Road 5	Langdon Drive	South End	0			0	
450	Proposed Road 6	Langdon Drive	East End	0			0	
451	Proposed Road 7	Langdon Drive	East to End	0			0	
350	Pumphouse Road	Graham Sideroad	1.5 km North of Graham Sideroad	1037			2016	1514
255	Quaker House Lane, Schomberg	Roselena Drive	North End Cul-de-Sac	139			2016	186
240	Queen Street, Lloydtown	Rebellion Way	Concession Road IX/X	288			2016	231
242	Rebellion Way, Lloydtown	Queen Street	North End	16			2016	22
235	Rebellion Way, Lloydtown	19th Sideroad	Centre Street	695			2016	139
239	Rebellion Way, Lloydtown	Centre Street	Queen Street	744			2016	31
461	Ria Court	Lavender Valley Road	North to end	0			0	
260	Rice Drive, Schomberg	Cooper Drive	East End	128			2016	171
457	Richard Serra Court	Austin Rumble Court	East to End	0			0	
474	Richard Serra Court	Austin Rumble Court	Sculptors Gate	0			0	
43	Robb Drive, Nobleton	McCutcheon Avenue	0.15 km North of McCutcheon Avenue	161			2016	215
410	Robb Drive, Nobleton	0.15 km North of McCutcheon Avenue	North End Cul-de-Sac	96			2016	128
446	Robert Berry Crescent	Siena Drive	Robert Berry Crescent	0			0	
16	Robinson Road, Nobleton	Ellis Avenue	Wilkie Avenue	452			2016	603
85	Rolling Court, Laskey	Laskay Mills Drive	South End Cul-de-sac	128			2016	171
455	Ron Coles Lane	Austin Rumble Court	Austin Rumble Court	0			0	
428	Rose Cottage Lane	Dr. Kay Drive	Ben Boy Avenue	0	2018	1175.6	2016	398
417	Roselena Drive, Schomberg	Moore Park Drive	0.28 km West of Moore Park Drive	1081	2018	532.7	2016	1441
253	Roselena Drive, Schomberg	0.28 km West of Moore Park Drive	West End Turnaround	1081	2018	532.7	2016	1441
74	Royal Avenue, Nobleton	Lynwood Crescent	11-King Road	131			2016	175
302	Rupke Road	Hwy. 9	Schomberg River	182			2016	243
28	Russel Snider Drive, Nobleton	Witherspoon Way	North End Cul-de-Sac	75	2015	198.3	2016	199
412	Russel Snider Drive, Nobleton	Sheardown Drive	0.30 km North of Sheardown Drive	308	2015	198.3	2016	199
25	Russell Snider Drive, Nobleton	Sheardown Drive	South End Barricade/Checkerboard	462			2016	199
30	Russell Snider Drive, Nobleton	0.30 km North of Sheardown Drive	Witherspoon Way	517			2016	199
0	Scotch Valley Drive	Norcliffe Drive	East End Turnaround	12			2016	16
89	Scott Cres.	Collard Drive	Collard Drive	183			2016	244
454	Sculptors Gate	Keele Street	Austin Rumble Court	0			0	
82	Second Street, Laskey	Mill Street	South End	54			2016	72
276	Shank's Drive, Pottageville	Cook Drive	East End	32			2016	43
32	Sheardown Drive, Nobleton	McTaggert Drive	Russel Snider Drive	739	2018	989.3	2016	816
38	Sheardown Drive, Nobleton	Hazelbury Drive	McTaggert Drive	869	2018	989.3	2016	816
40	Sheardown Drive, Nobleton	27-Regional Road 27	Hazelbury Drive	1559	2018	1897.4	2016	816
358	Showa Court, Schomberg	Highway 9	South End Turnaround	535			0	
445	Siena Drive	195m N. of Walkington Way	115m S. of James Street	0			2016	0
471	Sim Hill Crescent	Stan Roots Street	Stan Roots Street	0			0	
300	Simcoe Road, Carrying Pl.	Brule Trail	North End Turnaround	75			2016	100
301	Simcoe Road, Carrying Pl.	Brule Trail	South End Turnaround	123			2016	164
24	Simon-Henry Avenue, Nobleton	Nobleview Drive	Cedarwood Crescent	187			2016	61
441	Skyline Trail	McTaggart Drive	South End	0	2019	384	2016	0
443	Skyline Trail	Bluff Trail	Hill Farm Road	0	2019	384	2016	361
156	Snowberry Lane, King City	Kingscross Drive	South End Turnaround	43			2016	58
328	South Canal Bank Rd	Davis Road	Jane Street	191	2015	136.8	2016	137
330	South Canal Bank Rd.	Hwy. 9	Davis Road	367	2015	136.8	0	
463	Spring Hill Drive	King Road	Ria Court	0	2018	1219.2	0	
284	Spruce Hill Road	King Hills Lane	East End	54			2016	72
469	Stan Roots Street	King Road	Tatton Court	0			0	
160	Station Road, King City	0.2 km West of 6-Keele Street	Burns Boulevard	1066	2017	1699	2016	1291
402	Station Road, King City	6-Keele Street	0.2 km West of 6-Keele Street	2730	2017	1699	2016	1291
332	Strawbberry Lane	Aileen Avenue	Keele Street	388			2016	366
431	Summit Ridge Drive	Waterlily Trail	Rose Cottage Lane	0			2016	0
473	Sunbloom Street	Tatton Court	North to end	0			0	
413	Sunset Drive, Nobleton	Russel Snider Drive	Cedarwood Crescent	475			2016	169
472	Tatton Court	Dufferin Street	West to End	0			0	
162	Tawes Trail, King City	Jenkinson Grove	East End	32			2016	43
466	Terry View Drive	Nicort Road	South to End	0			0	
433	Tidnish Crescent	Skyline Trail	West End	0			2016	0
355	Toll Road	38-Bathurst Street	Highway 11	14	2017	834	2016	65
104	Trainor Court, Nobleton Lakes	16th Sideroad	South End	171			2016	228
166	Valley Crest Drive, King City	Dennison Street	North End Cul-de-sac	43			2016	58
467	Valley Point Crfescent	Terry View Drive	East to End	0			0	
241	Victoria Street, Lloydtown	Rebellion Way	East End	37			2016	81
297	W Canal Bank Road	Hwy. 9	Schomberg River	161			2016	215
121	Walkington Way, King City	Dennis Drive	Burns Blvd.	180	2019	658	2016	240
182	Warren Road, King City	Banner Lane	Patricia Drive	538	2017	205	2016	718
189	Warren Road, King City	0.1 km East of Patton Street	Banner Lane	342	2017	205	2016	456
180	Warren Road, King City	Patricia Drive	11-King Road	1658	2017	205	2016	2210
394	Warren Street, King City	Patton Street	0.1 km East of Patton Street	342	2017	205	2016	294
151	Watch Hill Road, King City	Kingsworth Road	Kings Cross Drive	507	2017	156	2016	676
432	Waterlily Trail	Rose Cottage Lane	South End	0			2016	588
269	Weedon Court, Pottageville	16-Lloydtown/Aurora Road	North End Turnaround	86			2016	115
65	Welland Avenue, Nobleton	11-King Road	0.4 km North	215			0	
404	Wellar Avenue, Nobleton	Hill Farm Road	230m south of Hill Farm Road	257			2016	343
424	Weller Avenue, Nobleton	Cross Avenue	90m north of Cross Avenue	257			2016	343
526	Wellington			8180			0	
527	Wellington			10030			0	
407	Wellington Street, Nobleton	Ellis Avenue	0.1 km North	321	2018	357.3	2016	253
56	Wellington Street, Nobleton	11-King Road	0.2 km South	321	2018	357.3	2016	253
468	Wells Orchard Crescent	Stan Roots Street	Tatton Court	0			0	
154	West Gate Blvd, King City	Kingscross Drive	55-Jane Street	703			2016	219

				2011 TMP (GIS Data)	Traffic Counts provided by Township		2016 Road Needs Study	
FID	NAME	FROM_	TO	AADT	Survey_Year	AADT_Total	Survey_Year	2016 AADT
246	Western Avenue, Schomberg	Elmwood Avenue	Main Street	631			2016	842
244	Western Avenue, Schomberg	Church Street	Elmwood Avenue	458			2016	611
502	Weston			4920			0	
504	Weston			3300			0	
505	Weston			4115			0	
507	Weston			4439			0	
516	Weston			2992			0	
557	Weston			2369			0	
558	Weston			2257			0	
566	Weston			2132			0	
346	Wilhelmina Road	Dufferin Street	West End	167			2016	223
15	Wilkie Avenue, Nobleton	South End Cul-de-Sac	Ellis Avenue	226	2019	440	2016	302
373	Willard Hunt Court, Schomberg	Dr. Jones Drive	North End	139			2016	186
169	William Street, King City	Dew Street	North End	43			2016	58
170	William Street, King City	11-King Road	Dew Street	285			2016	341
306	Williams Court, Carrying Pl	Hodgson Crescent	East End Turnaround	64			2016	86
52	Wilsen Road, Nobleton	Hazelbury Drive	27-Regional Road	364	2017	381	2016	450
88	Winter Road	Collard Drive	South Turnaround	64			2016	86
327	Wist Road	South Canal Bank Road	Woodchopper's Lane	127			2016	253
326	Wist Road	Woodchopper's Lane	1.1 km North of Woodchopper's Lane	127			2016	170
31	Witherspoon Way, Nobleton	McTaggart Drive	Russel Snider Drive	388			2016	518
29	Witherspoon Way, Nobleton	Russel Snider Drive	West End Cul-de-Sac	54			2016	72
331	Woodchopper's Lane	Jane Street	1.1 km East of Jane Street	0	2017	272	2016	919
336	Woodchopper's Lane	1.1 km E of Jane Street	Keele Street	0	2017	272	2016	919
318	Woodchopper's Lane	Wist Road	Jane Street	216	2017	272	2016	288
365	Woodhill Avenue, Nobleton	King Side Road	Farmcrest Court	528			2016	704
364	Woodhill Avenue, Nobleton	Farmcrest Court	Hawthorne Valley Road	792			2016	1056

KING TOWNSHIP – 2020 TRANSPORTATION MASTER PLAN

THE WAY FORWARD

MARCH 2020

Appendix D

DETAILED CALCULATIONS OF CAPITAL COSTS

Cost Estimates - New Roadway Construction

Road	From	To	Improvement	Length (m)	Classification	Cost Estimate			
						New Asphalt Road Unit Cost ($/m)	New Asphalt Road (Sub-total)	Contingency (10%), Soft Costs (10%), HST (1.76%)	**Total**
10th Concession Road	19th Sideroad	Queen Street	New Asphalt Road	448	Rural Collector	$ 1,191	$ 534,000	$ 116,000	**$ 650,000**

Notes:

(1) The cost presented are in 2019 Dollars and include 10% construction contingency, 10% soft cost and 1.67% HST.

(2) All costs presented are Class D estimates and thus may vary significantly based on item quantities.

(3) Cost for active transportation facilities, such as sidewalks and bike lanes, are not included.

(4) Costs to upgrade roads as trucking routes and additional streetscaping costs are not included.

(5) It is assumed that the costs for all new roads within future developments will be collected as part of the developer's applications; thus, these roads were not costed.

(6) Unit costs assume typical environmental conditions and topography.

(7) Right-of-ways are based on the Township's standard cross-section designs. No considerations are given in implementing a "constrained" version of the cross-section. Costs do not include property or land acquisition.

(8) The breakdown of the new construction and reconstruction roadway unit costs is attached. Note that where recent costs were not readily available, cost estimates from the 2014 TMP are inflated to 2019 dollars by applying a 13.7% inflation factor, as per the non-residential construction price index prescribed in the Development Charges Act.

2 Lane Collector Road - RURAL
12.5 m asphalt
26m ROW

ROW	26	m		HL1	40	mm	Gran A 150 mm
Proposed Aspalt Width	12.5	m		HL3	0	mm	Gran B 450 mm
Existing Asphalt Width	6.7	m		HL4/HL8	80	mm	

	Unit	Average Unit Price (2014 Dollars)	Price per metre (2014 Dollars)	Formula	Price per metre (2014 Dollars)	Assumptions
REMOVALS (From Scratch)			**Reconstruction**		**New Construction**	
Earth Excavation	cu. m.	$21.98		(D7+2)*((L6+L7)/1000)*1*D14	$191.22	reconstruction (difference btn ex and prop asphalt width)
Average Cost of Removals for 7.5m asphalt road on a 23.0m ROW			$0.00		$191.22	
REMOVALS (Existing 2-Lane Urban Road)						
Remove Existing Asphalt	sq.m.	$7.00	$46.90	D8*1*D19		
Remove Concrete Curb and Gutter	m.	$9.21		1*2*D20		
Remove Ex Storm MH	each	$619.85		1/90*D21		1 storm MH every 90 metres
Remove Ex Catch basin	each	$575.00		2/90*D22		2 catchbasins every 90 metres
Remove Ex Storm Sewer	m.	$73.92		1*D23*85%		85% of section has storm sewer
Remove Existing Concrete Sidewalk	sq. m.	$12.50		1.5*1*2*D24		1.5 metre wide sidewalk, both sides of the road
Tree Removal	each	$434.00		2*D25/15		1 tree every 15m both sides
Stripping of Topsoil	sq. m.	$11.00		(D6-D8-1-3)*1*D26		150 mm stripped
Average Cost of Removals for 6.7m 2-lane asphalt road			**$46.90**		**$0.00**	
CONSTRUCTION						
Granular A	sq. m.	$10.26		(D7+1*2)*D31	$148.77	reconstruction (difference btn ex and prop asphalt width)
Granular B	sq. m.	$27.00		(D7+1*2)*D32	$391.50	reconstruction (difference btn ex and prop asphalt width)
Concrete Curb and Gutter	m.	$56.60		1*2*D33		
100 mm Diameter PE Subdrain	m.	$25.00		1*2*D34		
HL1 Asphalt	sq. m.	$9.69	$121.13	D7*1*D35		
HL 4 or HL 8 Hot Mix or Recycled	sq. m.	$13.18		D7*1*D36	$164.74	
Tack Coat	sq. m.	$0.50	$6.25	D7*1*D37	$6.25	
Concrete Sidewalk	sq. m.	$53.00		2*2*1*D38		2.0 metre wide sidewalk, both sides of the road
Fine Grading, Topsoil & Sod	sq. m.	$12.00		(D6-D7-1-4)*1*D39	$102.00	Width of blvd = ROW-asphalt width- curb width - sidewalk both sides
Mechanical Water Quality Device	each	$40,250.00		D40/13000*D7		1 device for every 13000sq. m. of asphalt
375mm Diameter Storm Sewer	m.	$376.21		1*D41*85%		85% of section requires storm sewer
1200mm Diameter Precast Maintenance Hole	each	$5,200.00		1/90*D42		1 mh every 90 metres
Precast Catch Basin -Single	each	$2,600.00		2/90*D43		2 catchbasins every 90 metres
250mm Diameter Catch Basin Lead, Flexible	m.	$485.00		2/90*D44*D7/2		every 90 metres x road width / 2, reconstruction (diff btn ex and prop asphalt width)
Adjust Existing MH and CB to finished grade	each	$446.00		3/90*D45		1 mh, 2 cbs every 90 metres (only 1 mh for reconstruction)
Trees	each	$483.63		2*D46/15		1 tree every 15 m both sides
Average Cost of Construction for 12.5m asphalt road on a 26.0m ROW			**$127.38**		**$813.26**	
MISCELLANEOUS			**Reconstruction**		**New Construction**	
Bonds	L. S.					
Bonds as a percentage of net tender amount		1.80%	$3.14		$18.08	
Insurance	L. S.					
Insurance as a percentage of net tender amount		1.00%	$1.74		$10.04	
Garbage and Recyclable Collection	L. S.					
Garbage and Recyclable Collection as a % of net		0.10%	$0.17		0	
Traffic Control and Signing	L. S.					
Traffic Control and Signing as a % of net		1.24%	$2.16		$12.46	
Field Office	L. S.					
Field Office as a percentage of net tender amount		0.12%	$0.21		$1.21	
Schedule of Work	L. S.	0.10%	$0.17		$1.00	0.1% of net cost
Street Lights	each	$1,662.38				spacing 56m, on both sides, Street Lights (Pole,Luminaire Arm Bracket, Luminaire c/w Photocell)
Street Light Duct Work	m.	$33.50				$25 @2006, inflated 5%, $33.50 @2012
Asphalt Driveway Removal and Restoration	sq. m.	$25.94	$74.19			45 ft (13.72m) lot, 20 ft (6.1m) driveway 44%of blvd is dwy. depth of dwy = (blvd width - sidewalk) * both sides of road
Average Cost of Miscellaneous Items for 7.5m asphalt road on a 23.0m ROW			**$81.79**		**$42.79**	

Reconstruction cost per metre		New construction cost per metre	
	$256.06	**2014 Dollars:**	**$1,047.26**
	$291.14	**2019 Dollars:**	**$1,190.74**

Note: Where recent costs were not readily available, cost estimates from the 2014 TMP are inflated to 2019 dollars by applying a 13.7% inflation factor, as per the non-residential construction price index prescribed in the Development Charges Act.