

City of Hamilton

# Fruitland Road from Barton Street to Highway 8 Municipal Class Environmental Assessment Study PHASES 1 & 2 REPORT



**Prepared by:**

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## Executive Summary

### A. Introduction/Background

In September 1992, the former Regional Municipality of Hamilton – Wentworth (now the City of Hamilton) completed the Fruitland Road Realignment Class Environmental Assessment (Class EA) Study. The study followed the 1987 Ontario Municipal Engineers Association (MEA) Municipal Class EA Schedule C (Phases 1 to 4) planning process and focused on addressing problems related to traffic flow and volumes on Fruitland Road. The 1992 Environmental Study Report (ESR) recommended the realignment of Fruitland Road from Barton Street to Highway 8, which did not rule out a future extension up to the Niagara Escarpment. This realignment was subsequently adopted in the former City of Stoney Creek's and Regional Municipality of Hamilton – Wentworth's Official Plans, however to date has not yet been built.

On January 1, 2001, the new City of Hamilton was formed (1999 Ontario City of Hamilton Act) through the amalgamation of the former city and the other constituent lower-tier municipalities comprising of the Regional Municipality of Hamilton-Wentworth with the upper-tier regional government.

In 2003 the City began the development of new Rural and Urban Official Plans for the entire amalgamated City. The Rural Official Plan (OP) was approved by the Province in December 2008, but is currently under appeal to the Ontario Municipal Board (OMB). The Urban Hamilton OP was completed in July 2009 and is awaiting approval from the Ministry of Municipal Affairs and Housing (MMAH). Until the new Official Plan is approved, the former area municipality (i.e., City of Stoney Creek) and Regional Municipality of Hamilton Official Plans will remain in effect.

In October 2003, City Council adopted the Regional Official Plan Amendment (ROPA No. 14) and Stoney Creek Official Plan Amendment (OPA No. 99) to permit the expansion of the urban area in lower Stoney Creek. Following the OMB decision to approve the expansion, the City of Hamilton initiated the Stoney Creek Urban Boundary Expansion (SCUBE) exercise which today is referred to as the Fruitland – Winona Secondary Plan.

Today as part of the SCUBE and subsequent Fruitland-Winona Secondary Plan, Fruitland Road forms the western edge of the planning area. Regarding the 1992 Fruitland Road Realignment ESR, *Environmental Assessment Act (EAA)* Approval for the preferred undertaking (i.e., road realignment) has expired (5 year lapse of time between EA approval and construction).

The scope of this Municipal Class EA Study is to provide a comprehensive and environmentally sound planning process, which is open to public participation, and to select the preferred planning solution to improve Fruitland Road between Barton Street and Highway 8. Specifically, the purpose of this study is to:

- Update the Regional Official Plan (to be superseded by the new Urban Official Plan), which was guided by the results of the 1992 Fruitland Realignment (Highway 8 to Barton Street) Class EA Study; and
- Investigate the traffic and access management measures with the potential to improve safety and traffic operations for all roadway users within the study area.

## Study Area

The location and context of the subject area is illustrated on **Figure 1** in Section 1.2. Fruitland Road extends southerly from Lake Ontario to Highway 8 and is located in the eastern end of the City of Hamilton (formerly the City of Stoney Creek). Fruitland Road from the Queen Elizabeth Way (QEW) to Highway 8 is classified as a minor arterial road; it is also a designated truck route recently changed from a full time to part time designation. The study area for this Class Environmental Assessment (EA) centres on Fruitland Road from Barton Street to Highway 8 and is bounded by Barton Street to the north, Highway 8 to the south, Jones Road to the east and Dewitt Road to the west.

## B. Class EA Planning Schedule

The Fruitland Road from Barton Street to Highway 8 Municipal Class EA Study (December 2010) has followed the Municipal Engineers Association (MEA) Municipal Class EA (as amended in 2007) process for Phases 1 and 2 and the preferred alternative has been confirmed to be a Schedule C project (i.e., construction of a new road with a construction cost of over \$2.7 million). As such Phases 3 and 4 of the MEA Class EA planning process will be required to be completed either by following the MEA Class EA (2007) or the Integrated *Planning Act* process. At the completion of Phase 4 and the resulting Environmental Study Report (ESR) a 30-day public review would be applicable as well as a possibility for a Part II Order (appeal) to the Ministry of Environment (MOE).

## C. Problem and Opportunity Statement

The Problem and Opportunity Statement for this Municipal Class EA is defined as follows:

- Current concerns for the Fruitland Road residents are vehicle speeds/aggressive driving of trucks and other vehicles, which can cause difficulty entering and exiting fronting driveways along Fruitland Road. The residents believe that these factors contribute to the traffic safety issues in the study area; and
- The City of Hamilton's Fruitland-Winona Secondary Plan process presents an opportunity to address some of the problems on Fruitland Road and to establish a lay out of the future road network that will connect to Fruitland Road and distribute traffic for the proposed growth area.

In order to address the above problem/opportunity statement, the City initiated this Class EA planning process in late 2008 which updated existing conditions and identifies and evaluates alternative solutions.

## D. Development of Alternative Planning Solutions

Alternative solutions were developed to address the problem and opportunity statement with a specific focus on improving safety and traffic operations on Fruitland Road. In addition to the "Do Nothing" alternative specific road realignment alternatives were developed based on carrying forward with the realignment option proposed in the 1992 ESR. For this alternative, two variations (referred to as Alternative 2 series) were developed with one including a cul-de-sac on Fruitland Road north of Sandy Drive. The

second Alternative 2 series option includes two cul-de-sacs, on Fruitland Road with one located north of Sandy Drive and the other north of Highway 8.

A second series (referred to as Alternative 3 series) of road relocation options was developed based on utilizing a proposed new North-South road east of Fruitland Road as identified through the Fruitland-Winona Secondary Plan process. The new North-South road would intersect with Sunnyhurst Avenue at Barton Street and extend southerly to Highway 8. Four options for the new North-South road alternative were developed as follows:

- A cul-de-sac located south of Barton Street on Fruitland Road;
- Partially closed access on Fruitland Road south of Barton Street and Sherwood Park Road (north and south bound restrictions). To restrict traffic from using Fruitland Road a barrier would be located across the northbound lane, north of Sandy drive, permitting only southbound traffic to enter. Also a barrier would be located across the southbound lane, south of Sherwood Park Road, permitting only northbound traffic to enter;
- Partially closed access on Fruitland Road south of Barton Street (north bound restrictions only). A barrier would be located across the northbound lane, north of Sandy drive, permitting only southbound traffic to enter ; and
- Maintain Fruitland Road with no access restrictions in conjunction with implementation of gateway features (traffic calming/controls) and pedestrian crosswalks as enhancement features at the intersections of Fruitland Road at Barton Street and Highway 8.

**Figures 13 – 19** are found in Section 4.3 of the report and illustrate the Do Nothing Alternative and Alternative 2 and 3 series options.

## E. Evaluation of Alternative Solutions

An evaluation framework was developed and presented in Section 4.3, including technical considerations and environmental components that address the broad definition of the environment as described in the *Environmental Assessment Act (EAA)* and those based on comments received from relevant agencies. The following table presents the components utilized to evaluate the alternative solutions:

<b>Component</b>	<b>Description</b>
Transportation / Engineering	Component that evaluates the technical suitability and other engineering aspects of the road network system.
Socio-Economic Environment	Component that evaluates the potential effects on residents, neighbourhoods, businesses, community character, social cohesion and community features, in addition to municipal development objectives.
Natural Environmental	Component that evaluates the potential effects on the natural and physical aspects of the environment (e.g., air, land, water and biota) including natural heritage/environmentally sensitive areas.
Cultural Environment	Component that evaluates the potential effects on historical/archaeological and built heritage resources.
Cost	Component that evaluates the proposed financial implications to construct the road improvements.

## **F. Preferred Planning Solution**

Based on the evaluation of the alternative solutions and public and review agency input it was concluded that Alternative 3D (New North-South Road with Fruitland Road gateway features and pedestrian crosswalk enhancements) is the preferred planning solution based on the following rationale:

- Addresses the problem and opportunity statement;
- Can be implemented in conjunction with Fruitland-Winona Secondary Plan;
- Low impact on traffic operations as well as fire/emergency and municipal services;
- Truck Route is relocated to the new arterial roadway in conjunction with development; and
- Implementation of Gateway Features (traffic calming/controls) and Enhanced Pedestrian Crosswalk is not dependent on timing of Stoney Creek Secondary Plan and can be constructed sooner thus providing some benefits to Fruitland Road residents at relatively low cost.

## **G. Consultation Activities**

As part of the planning process, efforts have been made to inform government/review agencies, First Nations and the local community including fronting properties and the Fruitland-Winona Community Advisory Committee (CAC) of the nature and scope of the study and to solicit input/comments. These steps included publishing Notices of Project Commencement and Public Information Centre (PIC) No.1 and No.2 in the Stoney Creek News and Hamilton Spectator. Appropriate government/review agencies (e.g., Ministry of Environment, Hamilton Region Conservation Authority, Ministry of Culture, etc) and the local community were also notified of all study milestones by direct mailings. The following consultation activities were held throughout the Phases 1 and 2 Class EA process:

- A Fruitland-Winona Secondary Plan Meeting (members of the public and CAC attended) was held on January 22, 2009 and included a presentation to introduce the Fruitland Road Class EA, explain how the EA fits with the Secondary Plan, review goals and objectives and present the project's next steps and receive feedback on study issues;
- PIC No. 1 was held on May 4, 2010 and presented background information, purpose of the study, problem/opportunity statement, existing study area conditions, proposed evaluation criteria and alternative planning solutions as well as next steps. One hundred and one (101) people attended/signed in at the PIC;
- A CAC meeting was held on May 11, 2010 to summarize work completed to date and provide an overview of the alternative planning solutions and proposed evaluation criteria; and
- PIC No. 2 was held on June 15, 2010 and presented the evaluation of alternative solutions, the preliminary recommended solution including rationale for its selection, and the next steps. Fifty eight (58) people attended/signed in at the PIC.

Main issues raised and attempted to be addressed through the consultation process included:

- Speeding vehicles and heavy truck traffic on Fruitland Road pose significant safety concerns and negatively impact (e.g., noise and vibration) the quality of life for residents fronting the road;
- Alternative solutions need to consider impacts on surrounding roads and neighbourhoods;
- Air quality impacts and implementation schedule should be considered in the evaluation of alternatives; and
- The City should implement the by-pass or realignment alternative as documented in the 1992 ESR.

From one on one discussions at the PIC's and comments received, many people agreed that the preliminary recommended solution (Alternative 3D) is needed and will address the problem and opportunity statement. However, several residents noted their dissatisfaction with Alternative 3D as it may take a relatively long time to implement and does not significantly remove traffic from Fruitland Road compared to the Alternative 2 series which includes cul-de-sacs. Comments received from the PIC's and CAC meeting are discussed and summarized in Section 5.

## H. Conclusions and Recommendations

This Class EA Phase 1 and 2 report addresses the problem and opportunity statement as presented in section 3.0 and provides the basis for completing Phases 3 and 4 of the Municipal Class EA process. Recommendations for carrying forward include:

- Public comments and input (to be considered in future EA activities) on the Phase 1 and 2 report will be sought through a 30-day review process with no possibility for a Part II Order (appeal) to the Ministry of Environment;
- The remaining steps of the Schedule 'C' Class EA planning process (i.e., Phases 3 and 4) be completed through the Integrated MEA Class EA and *Planning Act* process, with the responsibility for completion of the planning process assigned to benefitting developers;
- Through the remaining planning process and ultimate recommended design concept the new road in addition to vehicular and pedestrian requirements must be able to accommodate new services;
- Following construction and opening of the new North-South road, the current truck route designation on Fruitland Road be permanently moved to the new road as this road is to be built for this purpose;
- Following construction and opening of the new North-South road, the City of Hamilton transportation staff will monitor local traffic network operations to ensure that any issues with the new road network are addressed and reported back to the Public Works Committee; and
- As an interim measure Council should consider advancing the implementation of Gateway Features (as identified in the "Do Nothing" alternative and Alternative 3D) on Fruitland Road which will address some of the safety and operational problems on Fruitland Road until the new North-South road is constructed and put into service.



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**Acronyms**

<b>AADT</b>	Average Annual Daily Traffic
<b>ANSI</b>	Area of Natural or Scientific Interest
<b>BASF</b>	Building A Strong Foundation
<b>CAC</b>	Community Advisory Committee
<b>CEAA</b>	Canadian Environmental Assessment Act
<b>City</b>	City of Hamilton
<b>Class EA</b>	Municipal Class Environmental Assessment
<b>DFO</b>	Department of Fisheries and Oceans
<b>EA</b>	Environmental Assessment
<b>EAA</b>	Environmental Assessment Act
<b>EB</b>	Eastbound
<b>ELC</b>	Ecological Land Classification
<b>ESR</b>	Environmental Study Report
<b>GRIDS</b>	Growth Related Integrated Development Strategy
<b>ha</b>	hectare
<b>HCM</b>	Highway Capacity Manual
<b>HRCA</b>	Hamilton Region Conservation Authority
<b>km</b>	kilometre
<b>L</b>	Left turn movement
<b>LOS</b>	Level of Service
<b>m</b>	metre
<b>MEA</b>	Ontario Municipal Engineers Association
<b>MMAH</b>	Ontario Ministry of Municipal Affairs and Housing
<b>MNR</b>	Ontario Ministry of Natural Resources
<b>MOE</b>	Ontario Ministry of the Environment
<b>MTO</b>	Ontario Ministry of Transportation
<b>NB</b>	Northbound
<b>NHIC</b>	Natural Heritage Information Centre
<b>OMB</b>	Ontario Municipal Board
<b>OP</b>	Official Plan
<b>PDO</b>	Property Damage Only
<b>PIC</b>	Public Information Centre
<b>PPS</b>	Provincial Policy Statement
<b>Province</b>	Province of Ontario
<b>QEW</b>	Queen Elizabeth Way
<b>R</b>	Right turn movement
<b>ROPA</b>	Regional Official Plan Amendment
<b>ROW</b>	right-of-way
<b>SB</b>	Southbound
<b>SCUBE</b>	Stoney Creek Urban Boundary Expansion
<b>T</b>	Through movement
<b>TAC</b>	Transportation Association of Canada
<b>TMP</b>	Transportation Master Plan
<b>T/TR</b>	Through and shared through-right movement
<b>V/C</b>	Volume to Capacity ratio

# 1. Introduction and Study Background

## 1.1 Background

In September 1992, the former Regional Municipality of Hamilton – Wentworth (now the City of Hamilton) completed the Fruitland Road Realignment Class Environmental Assessment (Class EA) Study. The study followed the 1987 Ontario Municipal Engineers Association (MEA) Municipal Class EA Schedule C (Phases 1 to 4) planning process and focused on addressing problems related to traffic flow and volumes on Fruitland Road. The 1992 Environmental Study Report (ESR) recommended the realignment of Fruitland Road from Barton Street to Highway 8, which did not rule out a future extension up to the Niagara Escarpment. This realignment was subsequently adopted in the former City of Stoney Creek's and Regional Municipality of Hamilton – Wentworth's Official Plans, however to date had not yet been built.

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## 1.2 Study Location and Scope

The location and context of the subject area is illustrated on **Figure 1**. Fruitland Road extends southerly from Lake Ontario to Highway 8 and is located in the eastern end of the City of Hamilton (formerly the City of Stoney Creek). Fruitland Road from the Queen Elizabeth Way (QEW) to Highway 8 is classified as a minor arterial<sup>1</sup> road; it is also a designated truck route recently changed from full time to part time<sup>2</sup> designation.

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<sup>1</sup> Fruitland Road is classified a "Minor Arterial" (Urban Official Plan, 2009 Council Approved only, pending provincial approval).


<sup>2</sup> City of Hamilton Council meeting July 8, 2010, Fruitland Road has been recently changed from a full time to a part time through Truck Route (non-truck route from 7 a.m. to 7 p.m., seven days a week) on a trial basis for 18 months when staff will then report back to the Public Works Committee.

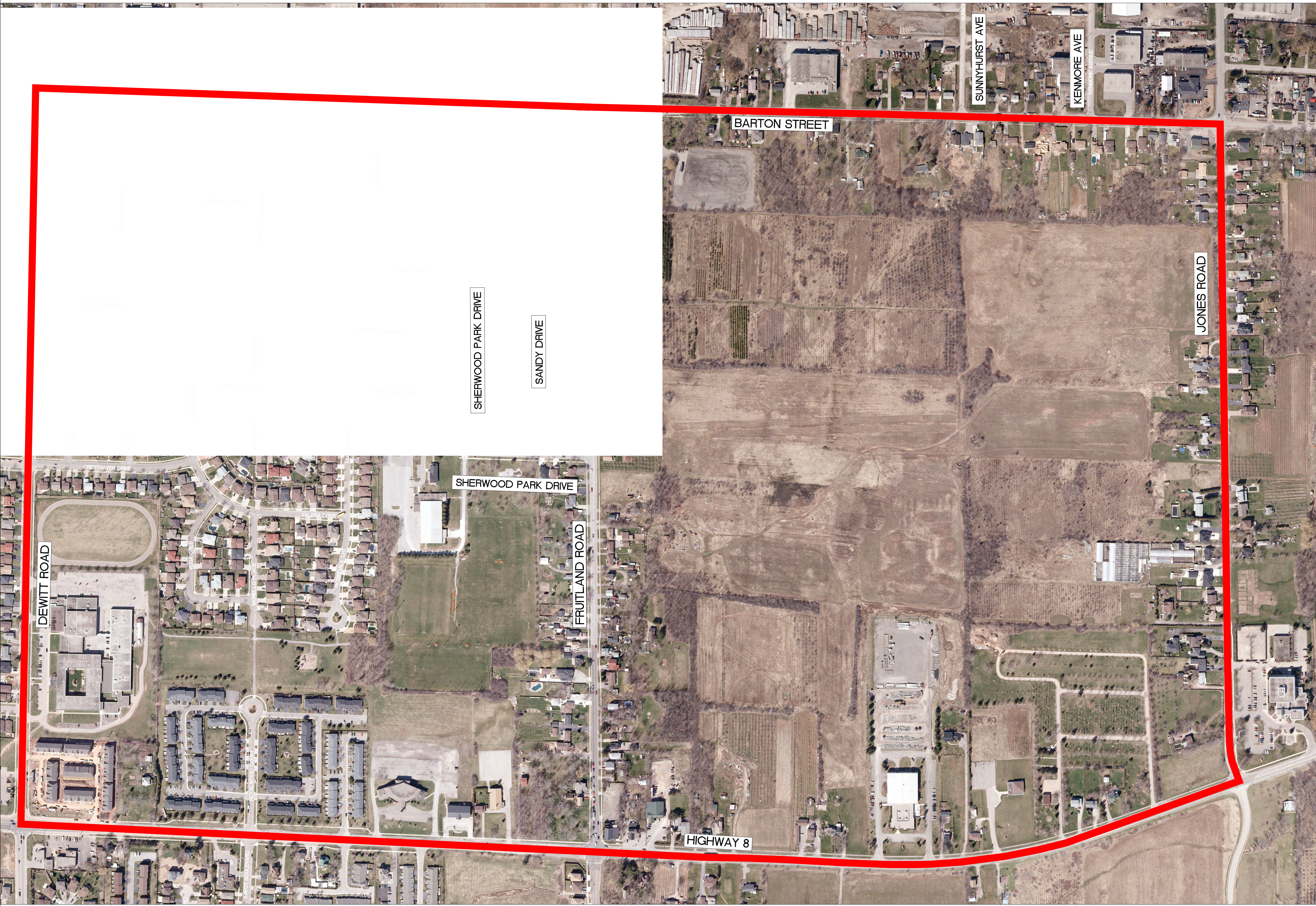
The study area for this Class EA centres on Fruitland Road from Barton Street to Highway 8 and is bounded by Barton Street to the north, Highway 8 to the south, Jones Road to the east and Dewitt Road to the west.

The scope of this Municipal Class EA Study is to provide a comprehensive and environmentally sound planning process, which is open to public participation, and to select the preferred planning solution to improve Fruitland Road between Barton Street and Highway 8. Specifically, the purpose of this study is to:

- Update the Regional Official Plan (to be superseded by the new Urban Official Plan), which was guided by the results of the 1992 Fruitland Realignment (Highway 8 to Barton Street) Class EA Study; and
- Investigate traffic and access management measures with the potential to improve safety and traffic operations for all roadway users within the study area.

**LEGEND:**

 STUDY AREA



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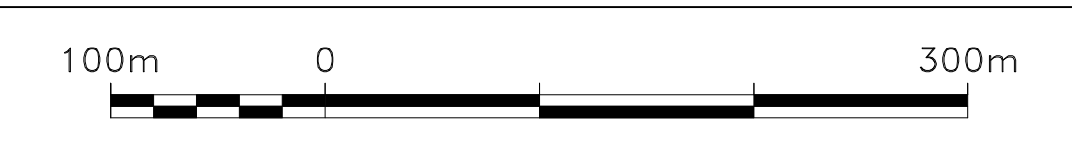
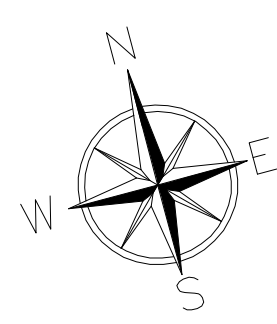
**FRUITLAND ROAD  
CLASS ENVIRONMENTAL ASSESSMENT**

**FIGURE  
1**

**STUDY AREA LOCATION**

BASE MAPPING PROVIDED BY:  
City of Hamilton  
AERIAL PHOTOGRAPHY 2007

**JULY  
2010**



111513

### 1.3 Format of this Report

This report was prepared to meet the requirements of Phases 1 and 2 of the Ontario MEA Municipal Class EA planning process. The report combines all phases of the planning process under one cover and incorporates the steps considered essential for compliance with the requirements of the *EAA* in the following sections:

- **Section 1** provides background information leading to the initiation of this study, outlines the format of this report, and describes the study location, scope and team organization. This section also provides an overview of the Municipal Class EA planning process, including the project planning schedule followed, public review procedures and next steps;
- **Section 2** describes the study area and its features, including road network, traffic operations, existing and future land uses, the natural environment, socio-economic environment, archaeological/cultural features, and other planning considerations;
- **Section 3** identifies and describes the problems/opportunities addressed by this Class EA study;
- **Section 4** presents the alternative solutions to addressing the problems/opportunities, including how the alternative solutions were developed and evaluated to identify the preferred solution;
- **Section 5** summarizes public and agency consultation activities undertaken as part of this Municipal Class EA; and
- **Section 6** presents the study conclusions and recommendations.



## 1.4 Study Team Organization

This Class EA Study was undertaken as a collaborative effort between the City of Hamilton and AECOM. General direction was provided by the City's representatives with many project team meetings held at key points throughout the planning process. The key team members from the City's Environmental and Sustainable Infrastructure Division of the Public Works Department and Planning and Economic Development Department and from AECOM included the following individuals:

<b>City of Hamilton</b>	
<b>Public Works Department</b>	
Environment and Sustainable Infrastructure Division Staff	
Margaret Fazio	Project Manager, Infrastructure and Source Water Planning
Rick Andoga	Senior Project Manager, Asset Management
Leanne Cunliffe	Project Manager, Traffic Engineering
Bart Brosseau	Technologist, Transportation Planning
Laurie McNair	Environmental Planning Support Technician
Mohan Philip	Project Manager, Transportation Planning
Andrew Felinczak	Design
Transportation, Energy and Facilities Division	
Andy McLaughlin	Supervisor, Planning and Marketing, Transit
Bill Zuk	Supervisor, Planning and Marketing, Transit
<b>Corporate Services Department</b>	
Wayne Thompson	Senior Financial Analyst, Financial Planning and Policy Division
<b>Planning and Economic Development Department</b>	
Sally Yong-Lee	Acting Manager, Infrastructure Planning, Development Engineering
Enzo Florio	Project Manager, Infrastructure Planning, Development Engineering Division
Andrea McDonald	Senior Planner, Community Planning and Design
Sylvia Renshaw	Business Development Consultant, Business Development, Economic Development and Real Estate Division
<b>Hamilton Region Conservation Authority</b>	
Shari Faulkenham	Ecologist
<b>AECOM</b>	
Tim Stuart	Project Manager
Altaf Hussain	Transportation Engineer
Karl Grueneis	Senior Environmental Planner
Susan Smyth	Environmental Planner
Tara Lynn Nava	Environmental Planner
Gord Shields	Road Design

Additional subject-specific expertise was provided by Dillon Consulting for the Natural Heritage Assessment and the Fire and Emergency Services Assessment and Jacques Whitford for the Stage 1 Archaeology Study.

## 1.5 Municipal Class Environmental Assessment Process

### 1.5.1 Overview

All municipalities in Ontario, including the City of Hamilton, are subject to the provisions of the *EAA* (1990, as amended in 2009) and its requirements to prepare an Environmental Assessment for applicable public works projects. The Ontario MEA “Municipal Class Environmental Assessment” document (October 2000, as amended in 2007) provides municipalities with a five-phase planning procedure, approved under the *EAA*. This phased procedure is to plan and undertake all municipal sewage, water, stormwater management and transportation projects that occur frequently, are usually limited in scale, and have a predictable range of environmental impacts and applicable mitigation measures.

In Ontario, infrastructure projects such as the proposed road improvements for Fruitland Road are subject to the Municipal Class EA process and must follow a series of mandatory steps as outlined in the Municipal Class EA document.

The Class EA consists of five phases as summarized below:

- **Phase 1 – Problem or Opportunity:** Identify the problems or opportunities to be addressed and the needs and justification;
- **Phase 2 – Alternative Solutions:** Identify alternative solutions to the problems or opportunities by taking into consideration the existing environment, and establish the preferred solution taking into account public and agency review and input;
- **Phase 3 – Alternative Design Concepts for the Preferred Solution:** Examine alternative methods of implementing the preferred solution based upon the existing environment, public and agency input, anticipated environmental effects and methods of minimizing negative effects and maximizing positive effects;
- **Phase 4 – Environmental Study Report:** Document, in an Environmental Study Report (ESR), a summary of the rationale, planning, design and consultation process for the project as established through Phases 1 to 3 above, and make such documentation available for scrutiny by review agencies and the public; and
- **Phase 5 – Implementation:** Complete contract drawings and documents, proceed to construction and operation, and monitor construction for adherence to environmental provisions and commitments. Also, where special conditions dictate, monitor the operation of the completed facilities.

The Class EA process ensures that all projects are carried out with effectiveness, efficiency and fairness. This process serves as a mechanism for understanding economic, social and environmental concerns while implementing improvements to municipal infrastructure.

### 1.5.2 Mandatory Principles

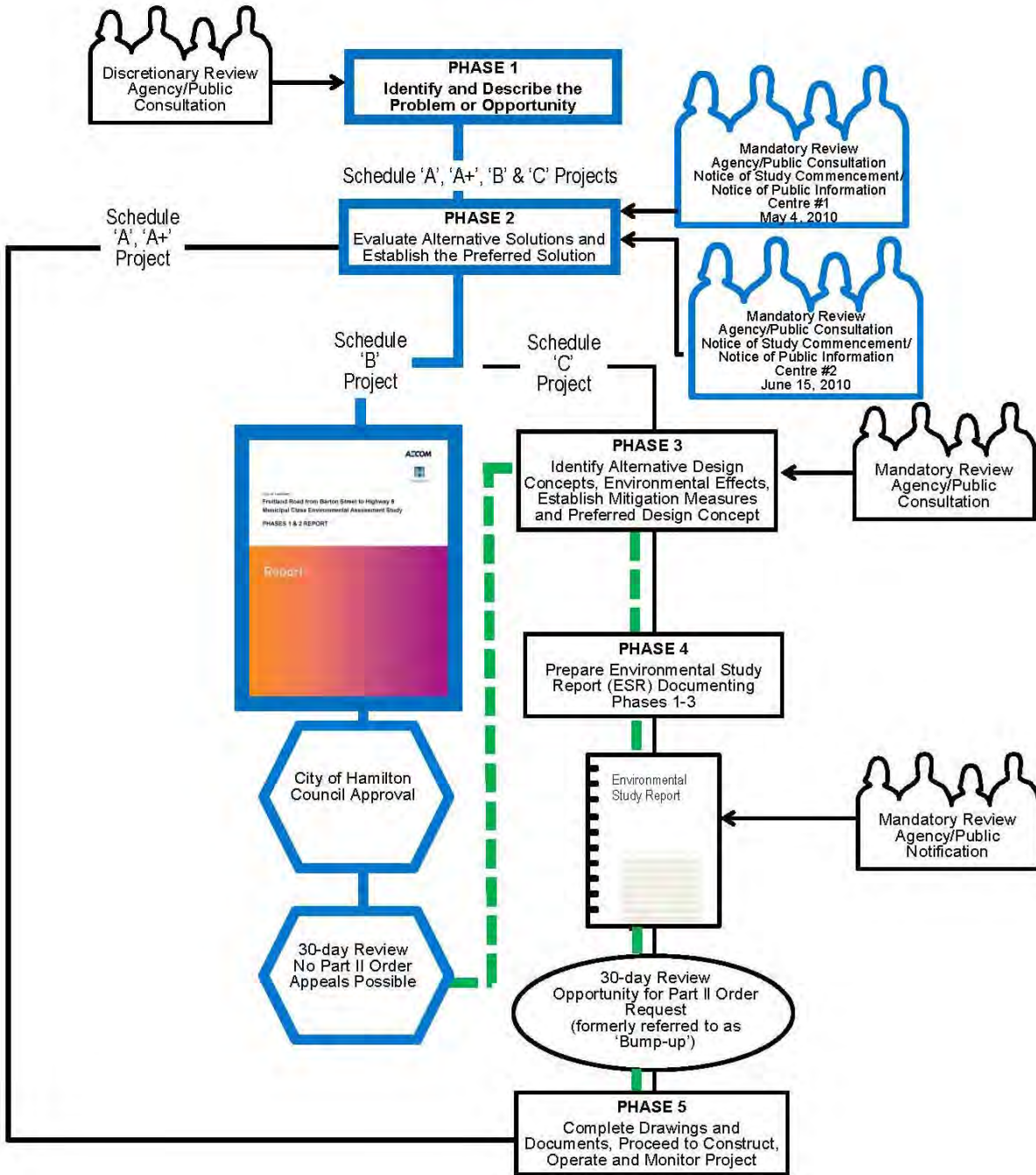
The planning process followed for this study not only adheres to the guidelines outlined by the Municipal Class EA document but reflects the following five mandatory principles of Class EA planning under the *EAA*:

- Consultation with affected parties early on, such that the planning process is a co-operative venture;
- Consideration of a reasonable range of alternatives;
- Identification and consideration of the impacts of each alternative on all aspects of the environment;
- Systematic evaluation of alternatives in terms of their advantages and disadvantages to determine the net environmental effects; and
- Provision of clear and complete documentation of the planning process, to allow “traceability” of decision-making with respect to the project.

Following these five principles ensures that the Class EA process is devoted to the prevention of problems and environmental damage through planning and decision-making, recognizing that research and evaluation of possible impacts have been taken into account prior to implementation of the project.

**Figure 2** illustrates the process followed in the planning and design of projects covered by a Municipal Class EA, including the Fruitland Road Municipal Class EA study.

**Figure 2 Overview of the Municipal Class Environmental Assessment Process**



Indicates the Class EA Process followed for this project



Indicates the Subsequent Class EA Process to be followed

### 1.5.3 Project Classifications

The Municipal Class EA document defines four types of projects and the planning processes required for each (referred to as Schedule A, A+, B or C). The selection of the appropriate project planning schedule is dependent on the anticipated level of environmental impact and for some projects, the anticipated construction costs. Projects are categorized according to their environmental significance and their effects on the surrounding environment.

Planning methodologies are described within the Municipal Class EA document and are different according to class type, described as follows:

**Schedule A:** These projects are limited in scale, have minimal adverse environmental effects and include a number of municipal maintenance and operational activities. These projects are pre-approved and may proceed to implementation without following the Class EA planning process. Schedule A projects generally include normal or emergency operational maintenance activities where the environmental effects of these activities are usually minimal.

Examples of Schedule A projects include culvert repairs and replacement where capacity is not increased and shaping road resurfacing with no changes to road alignment. As such, these projects are pre-approved and consequently do not require any further planning and public consultation.

**Schedule A+:** The purpose of Schedule A+ is to ensure that some type of public notification is provided for projects that are pre-approved under the Municipal Class EA. The proponent is required to inform the affected public of municipal infrastructure projects prior to being constructed or implemented. However, there is no ability for the public to request a Part II Order<sup>3</sup>.

Examples of Schedule A+ projects include road resurfacing where the horizontal alignment is not changed, localized operational improvements at specific locations (i.e., turning lanes at an intersection, but not a continuous centre left turn lane) and the installation, construction or reconstruction of traffic control devices (e.g., signing, signalization).

**Schedule B:** These projects have the potential for some adverse environmental effects. The proponent is required to undertake a screening process, involving mandatory contact with directly affected public and with relevant government agencies to ensure that they are aware of the project and that their concerns are addressed. If there are no outstanding concerns, then the proponent may proceed to implementation. Schedule B projects generally include improvements and minor expansions to existing facilities.

At the end of Phase 2, a Project File documenting the planning process followed through Phases 1 and 2 shall be finalized and made available for public and agency review for 30 days. However if the screening process raises a concern which cannot be resolved, the Part II Order may be requested and considered by the Minister of the Environment to elevate to a Schedule C or an Individual Environmental Assessment or

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<sup>3</sup> Part II Order refers to a request to the Minister of the Environment for a project to comply with Part II (addresses Individual Environmental Assessments) of the Environmental Assessment Act. The need for an Individual EA is based on the conclusion that based on predicted project impacts the MEA Class EA planning process is not sufficient and a more comprehensive EA planning process is required. The requirement to prepare an Individual EA involves the preparation of a Terms of Reference and EA document that are submitted to the Ministry of the Environment (MOE), other government agencies and the public for review.

alternatively, the proponent may elect voluntarily to plan the project as a Schedule C undertaking.

Examples of Schedule B projects include construction of new roads or reconstruction or widening where the reconstructed road will not be for the same purpose, use, and capacity or at the same location as the facility being reconstructed and where the construction cost is less than \$2.7 million.

**Schedule C:** Such projects have the potential for significant adverse environmental effects and must proceed under the full planning and documentation procedures specified in the Class EA document. Schedule C projects require that an Environmental Study Report (ESR) be prepared and filed for review by the public and review agencies for 30 days. Schedule C projects generally include the construction of new facilities and major expansions to existing facilities.

Examples of Schedule C projects include the reconstruction or widening where the reconstructed road or other linear paved facilities will not be for the same purpose, use, capacity or at the same location as the facility being reconstructed and construction of new roads where the construction cost is greater than \$2.7 million. If concerns raised cannot be resolved, a Part II Order may be requested and considered by the Minister of the Environment to elevate to an Individual Environmental Assessment.

**Appendix A** further expands on the steps required to complete the Municipal Class EA planning process.

#### 1.5.4 Project Planning Schedule

This Class EA study addresses Phases 1 and 2 of the Municipal Class EA planning process for a Schedule C project (i.e., construction of a new road with a construction cost of over \$2.7 million). If further steps are required in the Class EA process (i.e., completion of Phases 3 and 4 of Class EA) City staff will determine the process to complete Schedule 'C' Class EA activities (i.e., Phases 3 and 4) either through the Municipal Class EA process or through the Integrated *EAA* and *Planning Act* processes. At the completion of Phase 4 and the resulting ESR 30-day public review would be applicable as well as a possibility for a Part II Order (appeal) to the Ministry of Environment (MOE).

### 1.5.5 EA Documentation Filing

The placement of the Phase 1 and 2 Report for public review provides an opportunity for the public to provide comments prior to completing the remaining planning (i.e., Phases 3 and 4) and preliminary design stages of the project.

This Phase 1 and 2 Report is available for public review for a minimum thirty (30) calendar day period. A public notice (Notice of Phase 1 and 2 Report Availability for Review) is published to announce the commencement of the review period. Copies of the Phase 1 and 2 Report and all supporting documentation are available during normal business hours at the following locations:

**Stoney Creek Municipal Centre**  
777 Highway 8  
Stoney Creek, Ontario  
L8E 5J4  
**Hours**  
Monday to Friday:  
8:30am to 4:30pm

**City of Hamilton  
Clerk's Office**  
55 York Boulevard  
Hamilton, Ontario  
L8N 4E4  
**Hours**  
Monday to Friday:  
8:30am to 4:30pm

**City of Hamilton Central Library**  
55 York Boulevard  
Hamilton, Ontario  
L8N 4E4  
**Hours**  
Monday to Thursday: 9:00am to 9:00pm  
Friday: 9:00am to 6:00pm  
Saturday: 9:00am to 5:00pm  
Sunday: 1:00pm to 5:00pm

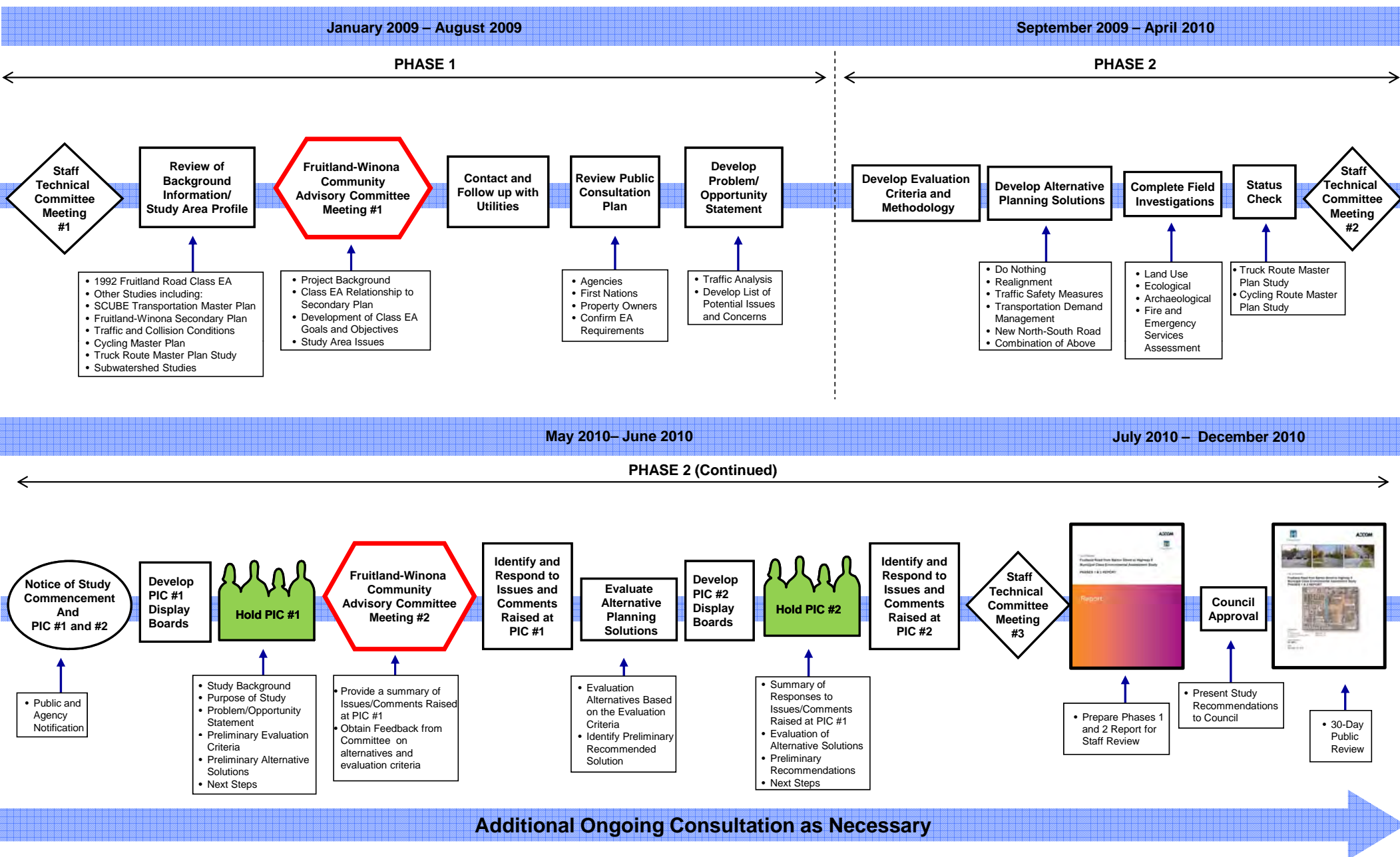
### 1.6 Communications and Consultation Program Overview

As part of the Municipal Class EA planning process, several measures to inform government agencies, affected property owners, local community stakeholders and the public of the project and to solicit comments were completed. To properly communicate the project and obtain feedback throughout the planning process, the following activities were undertaken (see **Figure 3** for further information):

- Publication of newspaper notices for all project milestones including Notice of Study Commencement and Public Information Centre (PIC) No.1 and PIC No.2; as well as direct mailing of notices to stakeholders, affected land owners and review agencies;
- Posting project milestones on the City's website [www.myhamilton.ca/fruitlandroadEA](http://www.myhamilton.ca/fruitlandroadEA);
- Holding two meetings, one hosted by the Planning and Economic Development Department Staff with the Fruitland-Winona Community Advisory Committee (CAC) present and the other exclusively with the CAC; and
- Holding two PICs to engage and obtain input from the public, review agencies and stakeholders.

The above communications and consultation program is described in more detail in **section 5**.

Figure 3 Planning and Consultation Process





## 2. Existing Conditions

The following sections describe the project study area, including traffic operations, existing and future land uses, natural environment, socio-economic environment, cultural and built heritage environment as well as planning considerations. This information was considered in the review of the potential effects the alternatives would have on these features.

### 2.1 Existing Transportation Conditions

#### 2.1.1 Road Network

Fruitland Road is currently classified as a minor arterial road from the Queen Elizabeth Way (QEW) to Highway 8 and is currently designated as a part time<sup>4</sup> truck route by the City of Hamilton. It provides a connecting link between the QEW and Highway 8. Within the study area, Fruitland Road has a two lane urban cross section with sidewalks along the entire western side of the road. The posted speed is 50 km/h. The intersections at either end of the study area are signalized.

At the north end of the study area, at the intersection of Fruitland Road and Barton Street, access is provided to a small shopping plaza (on the southwest corner) and a banquet hall (on the southeast corner). Fruitland Road provides access into a subdivision located on the west side via two collector roads (Sandy Drive and Sherwood Park Road). Sherwood Park Road provides access to an arena (Saltfleet Arena) and a community centre (Stoney Creek Lions Fruitland Community Centre). Numerous driveway accesses exist along Fruitland Road for private single family residences. At the south end of the study area, at the intersection of Fruitland Road and Highway 8, access is provided to a church and cemetery.

According to the 1999 Transportation Association of Canada's (TAC) *Geometric Design Guide for Canadian Roads*, traffic movement is a major consideration and some access control is provided on minor arterial roads. Traffic volumes are between 5,000 – 20,000 Average Annual Daily Traffic (AADT). Design speeds are between 50 – 70 km/h and average operating speeds are between 40 – 60 km/h. Desirable truck percentages are not specified in the guide for minor arterial roads, however, 20 percent is considered the maximum threshold for a major arterial road.

#### 2.1.2 Pedestrian and Cycling Environment

From Barton Street to Highway 8, Fruitland Road has a continuous sidewalk on the west side. Along the eastern side of Fruitland Road the sidewalk (paved pathway) begins at Barton Street and continues southerly until it stops at the Postal Service Mail Box and then continues south to Highway 8. At this time Fruitland Road does not include marked bicycle lanes, however, the City's current Cycling Master Plan<sup>5</sup>

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<sup>4</sup> City of Hamilton Council meeting, July 8, 2010, Fruitland Road has been recently changed from a full time to a part time through Truck Route (non-truck route from 7 p.m. to 7 a.m., seven days a week) on a trial basis for 18 months when staff will then report back to the Public Works Committee.

<sup>5</sup> *Shifting Gears 2009 City of Hamilton Traffic Engineering (June 2009)*

proposes bike lanes to be added to Fruitland Road (from North Service Road to Highway 8) and on Barton Street (from Fifty Road to Red Hill Valley Parkway).

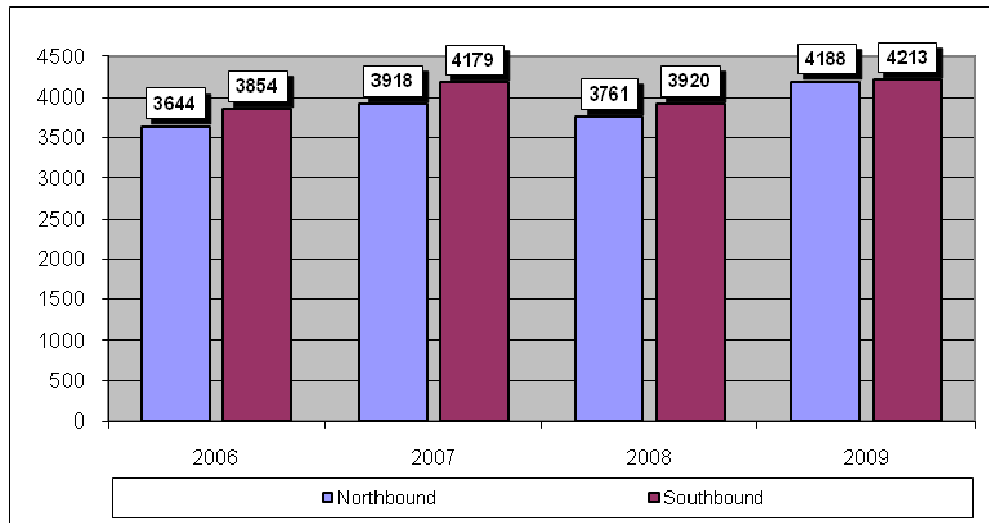
2.1.3 Historical and Existing Traffic Operations

2.1.3.1 Mid-Block Analysis

Existing Traffic Volume

Automatic 24-hour traffic counts were carried out on Fruitland Road in September 2006, April 2007/2008 and June 2009. **Figure 4** shows the average 24-hour traffic counts for northbound and southbound traffic over the four year period. The traffic counts show that counts have not changed significantly over the past four years; however, there are slightly more traffic travels southbound on Fruitland Road than northbound.

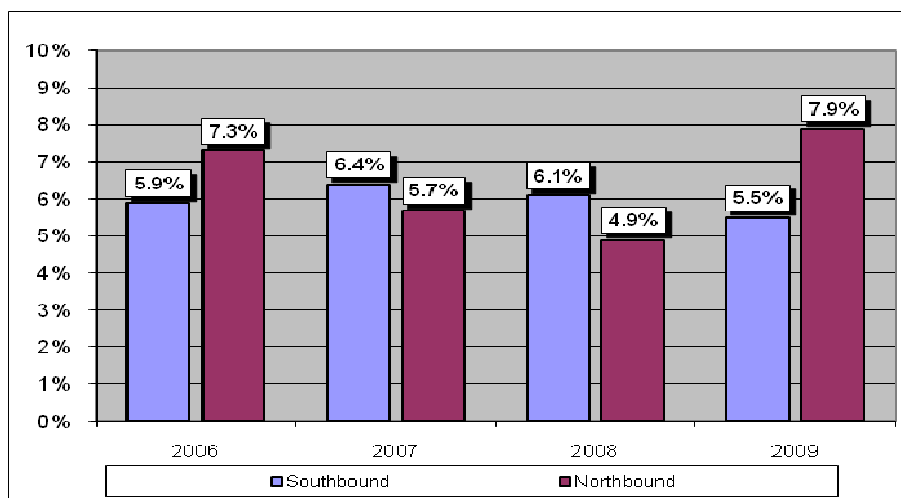
**Figure 4 Automatic Traffic Counts on Fruitland Road (2006 through 2009)**



Traffic Composition

Traffic composition was also collected as part of the automated traffic counts in 2006 through 2009 based on Fruitland Road designated as a full time truck route. **Figure 5** shows the percentage of movements along Fruitland Road that involved trucks (Vehicle Class 5 through 13). Overall truck percentages range between 4 and 8 percent. In the most recent year available, 7.9 percent of all northbound movements and 5.5 percent of all southbound movements involved trucks.

**Figure 5 Truck Percentages on Fruitland Road**



**2.1.3.2 Intersection Analysis**

In order to provide a “benchmark” which represents the existing operating conditions, a capacity analysis has been undertaken to determine the existing intersection level of service.

The traffic operations of the study area intersections were analyzed using Synchro / SimTraffic v.7, which employ analysis methodologies from the Highway Capacity Manual (HCM) for signalized and unsignalized intersections.

The Level of Service (LOS), Volume to Capacity ratio (V/C), vehicular delay (in seconds) and the 95<sup>th</sup> percentile queues (in metres) for each intersection were examined for both the AM and PM peak periods.

LOS is a measure used to describe the operating characteristics of an intersection or road section. There are six levels ranging from “A” (excellent, low delay) to “F” (failure, or forced flow). Typically, LOS “C” or “D” is considered an acceptable overall LOS for urban conditions and for the design of future road improvements. Specific intersection movements, such as left-turns may be acceptable at lower LOS.

The results of the existing AM and PM peak period analysis (LOS, v/c, delay and 95<sup>th</sup> percentile queue) are summarized in **Table 1**. The **bolded** numbers and letters in the table indicates an element that exceeds the following thresholds:

- V/C ratios for through or shared through/turning movements at or above 0.85;
- V/C ratios for exclusive left or right-turn movements at/or above 0.95;
- 95<sup>th</sup> percentile queues that are projected to exceed the available turning lane storage length; and
- LOS exceeding LOS “E”.

**Table 1** illustrates the results of the 2009 AM and PM peak hour operational analysis for the study area intersections.

The results of the 2009 AM and PM peak hour operational analysis of the study area intersections indicates that the intersection of Highway 8 and Dewitt Road is operating

at/or over capacity for certain left turn movements during the AM and PM peak periods. Otherwise, overall the intersections are operating relatively well with acceptable LOS.

**Table 1 Existing AM and PM Peak Hour Operational Analysis of the Study Area Intersections**

Intersection	Traffic Control	Approach/ Movement		Weekday AM				Weekday PM			
				v/c Ratio	Delay (sec)	95 <sup>th</sup> Queue (m)	%ile	LOS	v/c Ratio	Delay (sec)	95 <sup>th</sup> Queue (m)
Barton St & Fruitland Rd	Signalized	EB	L	0.97	60	114.2	E	0.90	50	87	D
			T T/R	0.10	11	10.6	B	0.16	16	15	B
		WB	L	0.10	11	7.8	B	0.11	16	10	B
			T T/R	0.16	11	13.7	B	0.23	17	20	B
		NB	L	0.70	57	22.7	E	0.25	14	9	B
			T/R	0.71	26	102.3	C	0.36	14	49	B
		SB	L	0.66	34	36.9	C	0.20	13	17	B
			T/R	1.01	66	172.4	E	1.05	68	226	E
		<b>OVERALL</b>		<b>DELAY=43SEC, V/C RATIO = 0.99, LOS=D</b>				<b>DELAY=41SEC, V/C RATIO = 0.98, LOS=D</b>			
		Sherwood Park Rd & Fruitland Rd	Unsignalized	EB	L/R	0.09	12	2.2	B	0.09	14
NB	L			-	8	0.1	A	0.03	8	1	A
	T			0.25	0	0	A	0.15	0	0	A
SB	T/R			0.13	0	0	A	0.29	0	0	A
<b>OVERALL</b>				<b>DELAY=1SEC, LOS=A</b>				<b>DELAY=1SEC, LOS=A</b>			
Highway 8 & Fruitland Rd	Signalized	EB	L	0.74	26	89	C	0.46	11	32	B
			T	0.28	6	36	A	0.33	8	45	A
			R	0.02	4	2	A	0.03	9	2	A
		WB	L	0.03	4	3	A	0.02	3	3	A
			T	0.40	7	62	A	0.34	5	49	A
			R	0.09	5	5	A	0.08	4	5	A
		NB	L	0.24	30	10	C	0.14	32	5	C
			T/R	0.15	29	15	C	0.07	31	8	C
		SB	L	0.65	41	31	D	0.46	35	23	C
			T/R	0.20	29	17	C	0.48	35	34	C
<b>OVERALL</b>		<b>DELAY=17SEC, V/C RATIO =0.72, LOS=B</b>				<b>DELAY=16SEC, V/C RATIO =0.46, LOS=B</b>					
Highway 8 & Dewitt Rd.	Signalized	EB	L	<b>1.39</b>	228	112	<b>F</b>	0.79	55	38	E
			T/TR	0.41	17	43	B	0.84	36	99	D
		WB	L	0.26	24	14	C	1.20	199	47	<b>F</b>
			T/TR	<b>0.61</b>	27	65.5	C	0.94	58	87	E
		NB	L	1.08	114	74	<b>F</b>	0.30	13	18	B
			T/R	0.15	15	16	B	0.07	9	8	A
SB	L	0.12	20	10.6	B	0.10	19	11	B		
	T/R	0.44	24	45.6	C	0.48	25	55	C		

Intersection	Traffic	Approach/	Weekday AM				Weekday PM				
		<b>OVERALL</b>	<b>DELAY=57SEC, V/C RATIO =1.13, LOS= E</b>				<b>DELAY= 46 SEC, V/C RATIO =0.69, LOS= D</b>				
Highway 8 & Jones Rd.	Unsignalized	EB	L	0.07	9	1.6	A	0.05	9	1.2	A
			T/R	0.21	0	0	-	0.25	0	0	A
		WB	L	0.00	0	0	-	0	0	0	A
			T/R	0.30	0	0	-	0.28	0	0	A
		NB	L	0.01	24	0.1	C	0.01	27	0.2	D
			T/R	0.01	16	0.1	C	0	0	0	A
		SB	L	0.12	25	3.0	C	0.27	28	8	D
			T/R	0.08	13	2	B	0.14	12	4	B
		<b>OVERALL</b>	<b>DELAY=2 SEC, LOS= A</b>				<b>DELAY=3 SEC, LOS= A</b>				
Barton St. & Dewitt Rd.	Signalized	EB	L	0.07	5	4	A	0.07	6	5	A
			T/TR	0.15	5	11	A	0.02	6	3	A
		WB	L	0.14	5	9	A	0.18	7	17	A
			T/TR	0.21	5	18	A	0.42	8	46	A
		NB	L	0.56	24	25	C	0.50	23	22	C
			T/R	0.22	19	17	B	0.13	19	12	B
		SB	L/T/R	0.40	20	24	C	0.71	28	57	C
				<b>OVERALL</b>	<b>DELAY= 11 SEC, V/C RATIO =0.31, LOS= B</b>				<b>DELAY= 14 SEC, V/C RATIO =0.51, LOS= B</b>		
Barton St. & Jones Rd.	Unsignalized	EB	L/T/R	0.02	1	0.5	A	0.01	1	0.1	A
		WB	L/T/R	0.01	1	0.1	A	0.02	1	0.4	A
		NB	L/T/R	0.22	17	6.1	C	0.13	15	3.3	C
		SB	L/T/R	0.20	15	5.5	B	0.27	16	8	C
			<b>OVERALL</b>	<b>DELAY= 4 SEC, LOS= A</b>				<b>DELAY= 4 SEC, LOS= A</b>			

### 2.1.3.3 Collision Data

The City of Hamilton provided AECOM with collision records for the years 2004 to 2008, during which a total of 27 collisions were reported within the study area. A review of the collisions was undertaken to identify collision trends occurring at a particular intersection or road section. According to the mid-block analysis, in March, 2007, a collision occurred when a vehicle could not stop for another vehicle making a right into the driveway. The turning vehicle was hit on the left side rear end and the speeding vehicle traveled across two front lawns before hitting into a front porch and causing damage. No one was injured during this collision. **Table 2** summarizes all the collisions that occurred along Fruitland Road from Barton Street to Highway 8.

**Table 2 Fruitland Road Collisions**

Location	Fatal	Injury	PDO	Unknown	Total
Fruitland Road at Barton Street	0	8	5	0	13
Fruitland Road at Sherwood Park Road	0	0	2	0	2
Fruitland Road at Highway 8	0	9	2	0	11
Fruitland Road – South of Barton Street	0	0	1	0	1
<b>TOTAL</b>	<b>0</b>	<b>17</b>	<b>10</b>	<b>0</b>	<b>27</b>

**Figure 6** below summarizes the collision locations occurring within the study area.

Figure 6 Collision Locations



### Collision Trends

Collision records from January 2004 to December 2008 were analyzed to identify collision trends. The various collision characteristics for each of the intersections and road sections were examined in terms of the following characteristics:

- Severity classification - property damage only, injury and fatal.
- Impact type.
- Seasonal:
  - Winter (December 22 to March 21)
  - Spring (March 22 to June 21)
  - Summer (June 22 to September 21)
  - Fall (September 22 to December 21)
- Hourly distribution:
  - Early Morning (12am to 6am)
  - AM Rush Hour (6am to 10am)
  - Midday (10am to 4pm)
  - PM Rush Hour (4pm to 8pm)
  - Evening (8pm to 12am)
- Lighting and environmental conditions.

The following trends were noted with the collisions along the entire study area and at individual intersections and road sections.

### Entire Study Area Intersections

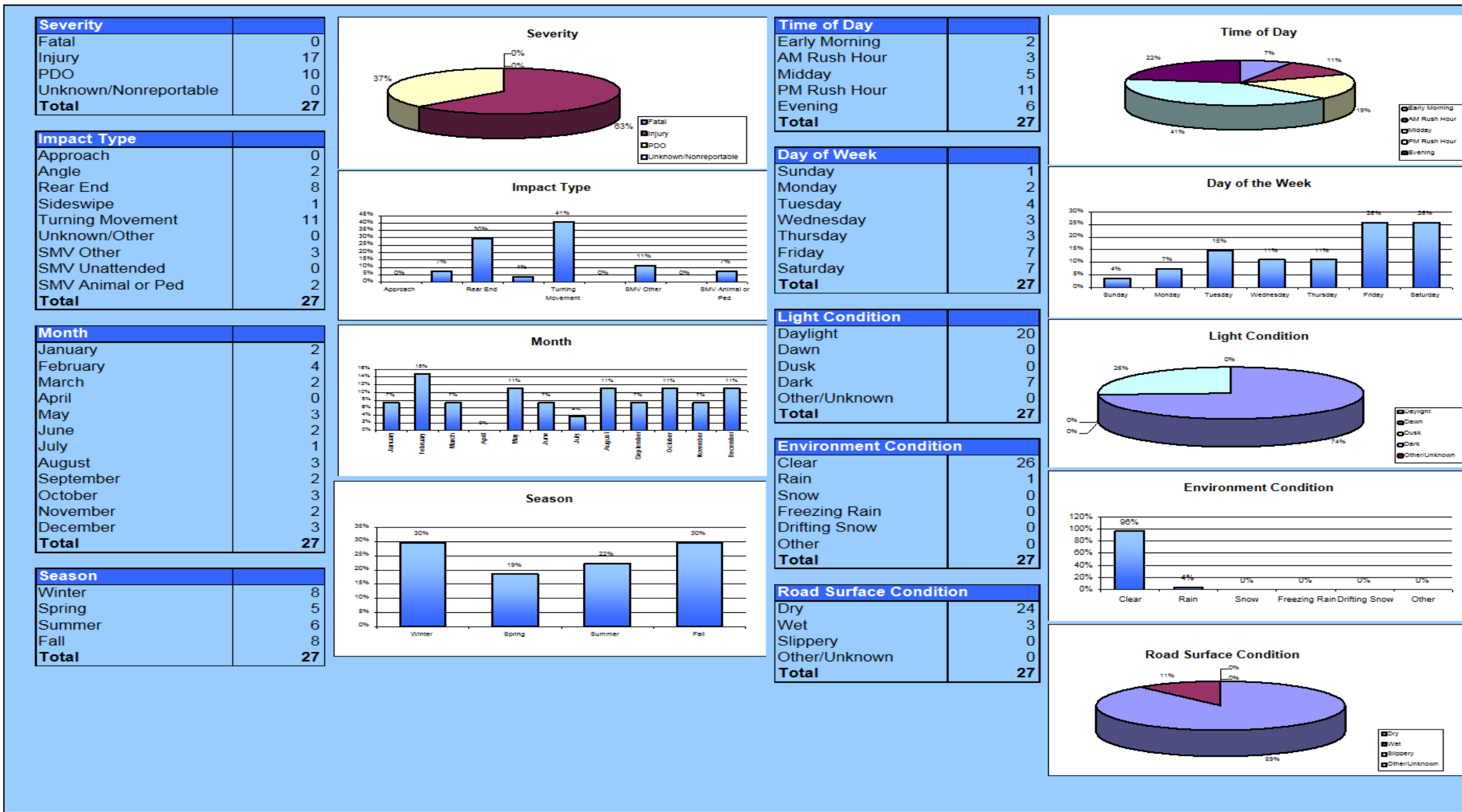
Twenty seven (27) collisions were found to be associated with the study area intersections and road segments during the five year period analyzed. The following lists the characteristics associated with the collisions:

- The majority of the collisions (63%) were injury collisions, the remaining collisions (37%) were property damage;
- The predominant impact type along Fruitland Road are turning movement collisions representing (41%) followed by rear end collisions (30%);
- The PM peak hour had the greatest number of collisions (41%), followed by evening (22%) and midday (19%), the remaining collisions (18%) occurred during early morning and AM peak hour;
- The collisions appeared to be distributed fairly equally throughout the months and seasons; and
- The majority of the collisions occurred under ideal driving conditions.

The characteristics for these intersections are shown graphically in **Figure 7**.



Figure 7 Collision Characteristics of Entire Study Area



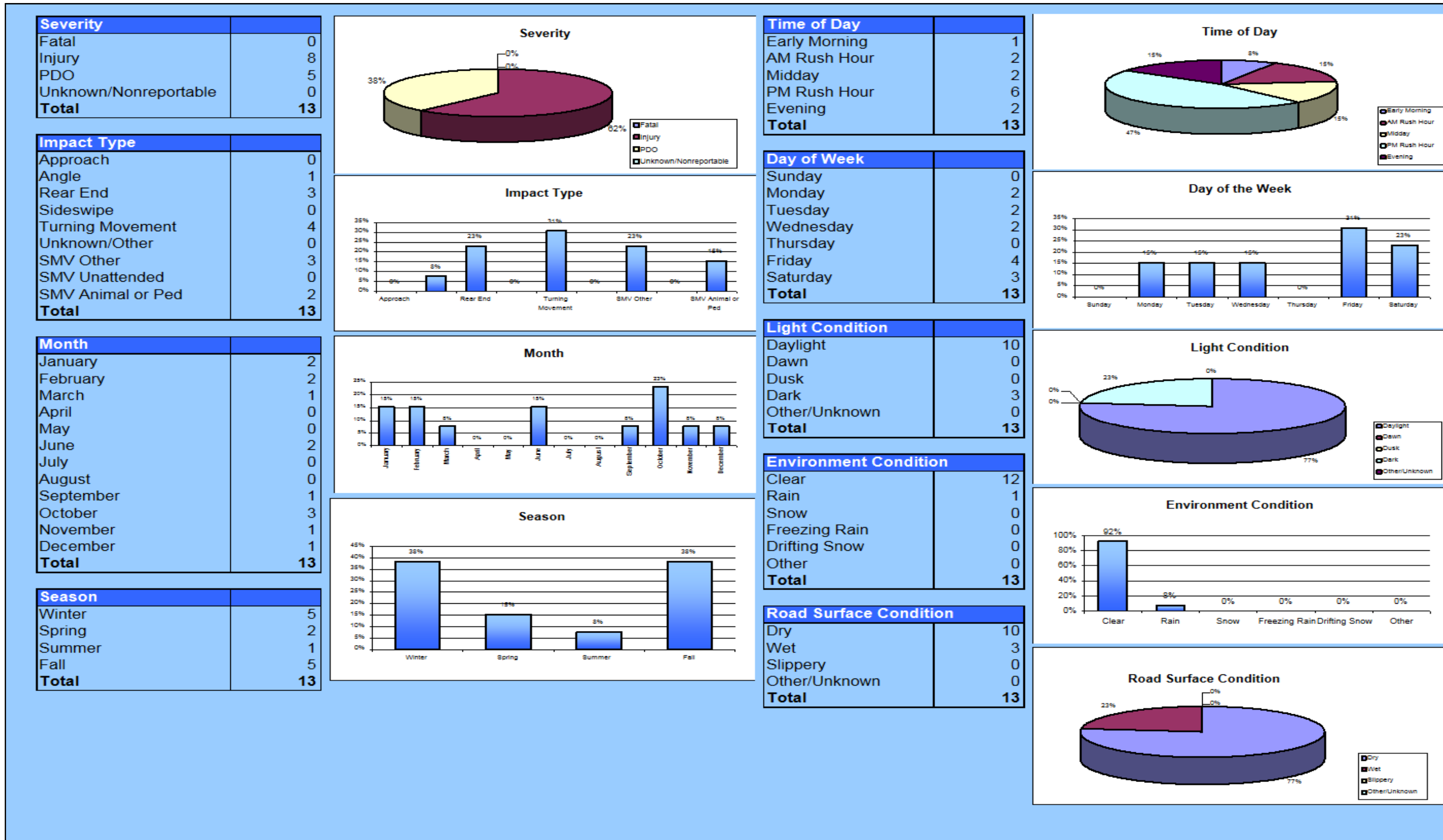
### Intersection of Fruitland Road at Barton Street

Thirteen (13) collisions were found to be associated with this intersection during the five year period analyzed. The following describes the characteristics of the collisions:

- The majority of the collisions (62%) were injury collisions while the remaining collisions (38%) were property damage;
- The predominant impact types along Fruitland Road are turning movement collisions (31%), followed by rear end collisions (23%) and single motor vehicle (23%);
- The PM peak hour had the greatest number of collisions (46%);
- The collisions appeared to be distributed fairly equally throughout the months and seasons; and
- The majority of the collisions occurred under ideal driving conditions.

The characteristics for this intersection are shown graphically in **Figure 8**.

**Figure 8 Collision Characteristics – Fruitland Road at Barton Street**



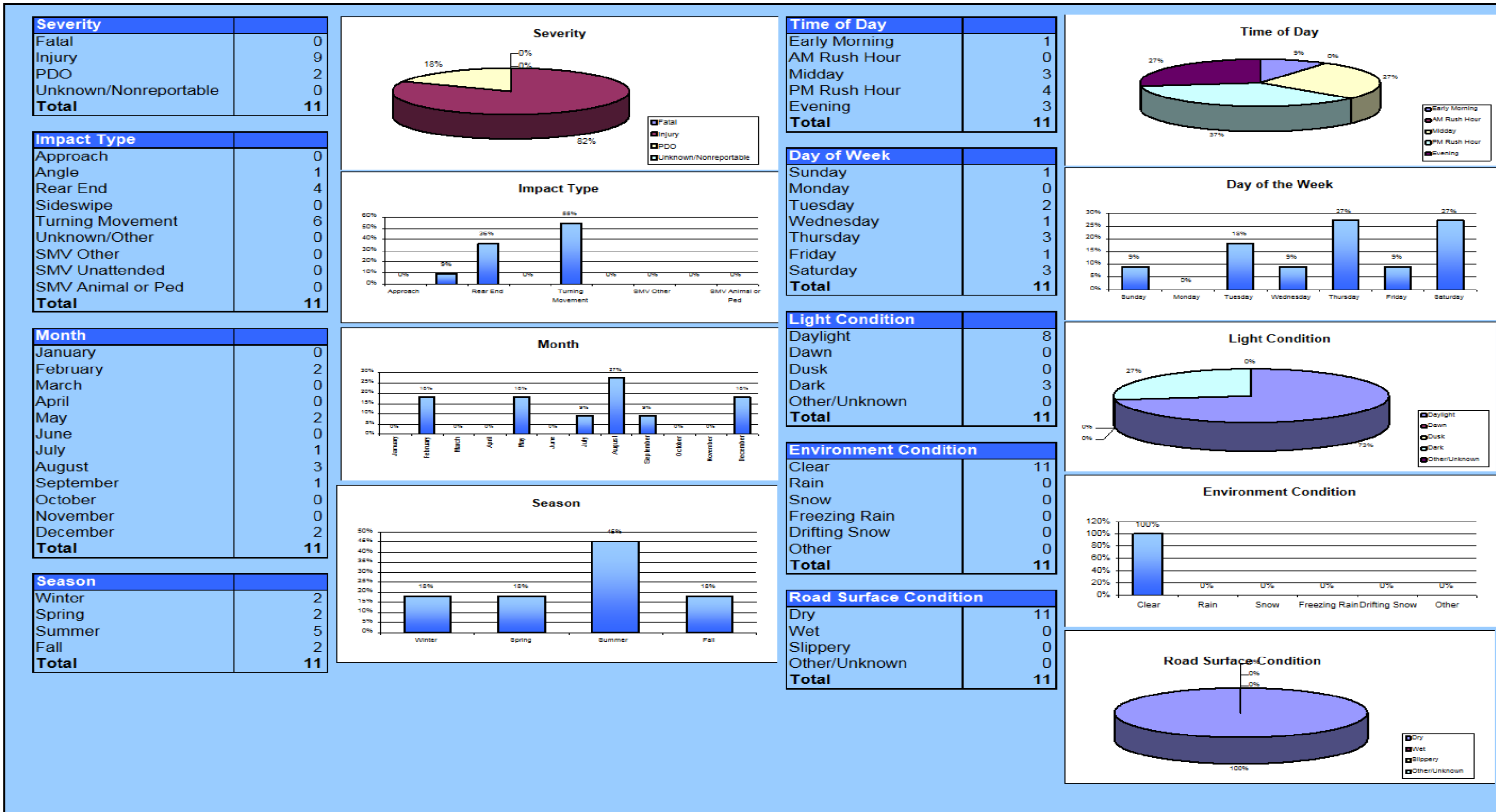
### Intersection of Fruitland Road at Highway 8

Eleven (11) collisions were found to be associated with this intersection during the five year period analyzed. The following describes the characteristics of the collisions:

- The majority of the collisions (82%) were injury collisions, the remaining collisions (18%) were property damage;
- The predominant impact types along Fruitland Road are turning movement collisions (55%), followed by rear end collisions (36%) and angle collisions (9%);
- The collisions appeared to be distributed fairly equally throughout the months, however, the summer season experienced the greatest number of collisions (45%);
- The PM peak hour had the greatest number of collisions (36%), followed by midday (27%) and evening (27%) while the remaining collisions (9%) occurred during early morning; and
- The majority of the collisions occurred under ideal driving conditions.

The characteristics for road sections are shown graphically in **Figure 9**.

Figure 9 Collision Characteristics – Fruitland Road at Highway 8



Collision trends for the rest of the locations such as the road section along Fruitland Road south of Barton and the intersection of Fruitland Road at Sherwood Park Road have not been shown graphically due to less numbers of collisions (1 to 2 collisions in five years).

#### Vulnerable Road User Collisions

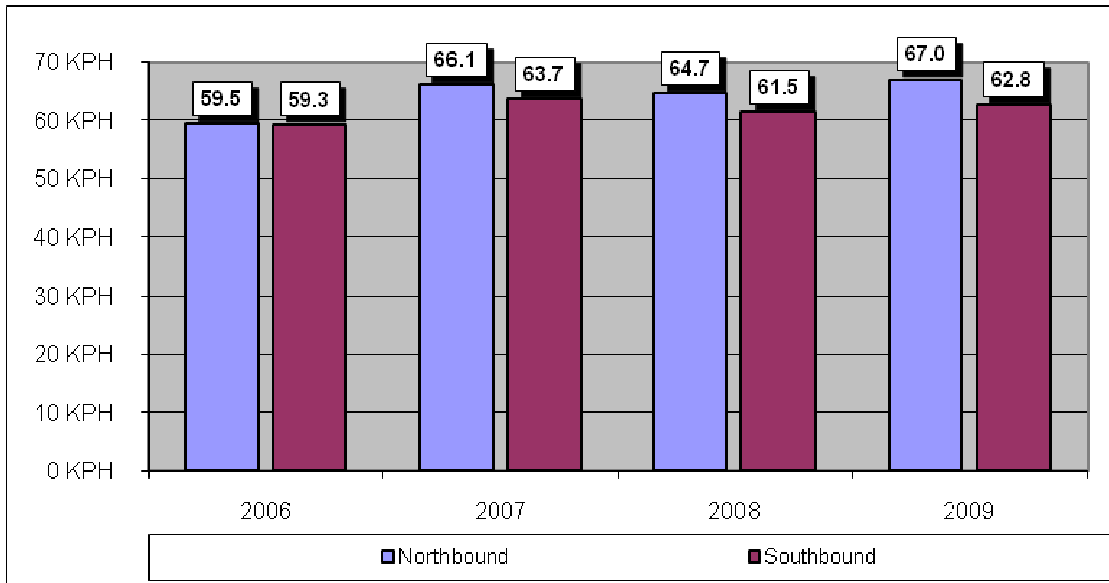
Two collisions involving vulnerable road users were noted during the collision analysis, both occurred at the intersection of Fruitland Road at Barton Street in February of 2007. They were classified as non-fatal injury collisions and occurred under ideal driving conditions.

Two pedestrian collisions were noted during the collision analysis at the intersection of Fruitland Road and Barton Street in February 2007. They were classified as non-fatal injury collisions and occurred under ideal driving conditions. The first collision occurred during the PM peak period, where an inter-city bus was traveling south on Fruitland Road turning right onto Barton Street and failed to yield the right-of-way (ROW) to the pedestrian. The driver was not at fault in this collision because of the possibility that the pedestrian was crossing the road against the light. The second collision occurred during the AM peak period, where a pick-up truck was traveling north on Fruitland Road turning right onto Barton Street and failed to yield the right of way to the pedestrian and therefore the driver was at fault.

#### *2.1.3.4 Speed Analysis*

Speed data was also collected as part of the automated traffic counts for the years 2006 through 2009. **Figure 10** shows the 85<sup>th</sup> percentile speeds based on the automated traffic counts. The 85<sup>th</sup> percentile speeds were close to 60 km/h in 2006, increasing to between 64 – 66 km/h in 2007, before dipping slightly in 2008 to between 62 – 65 km/h. There was an increase in speed between 63 – 67km/h in 2009. The 85<sup>th</sup> percentile speeds in the northbound lanes were consistently higher than the southbound lanes, possibly due to northbound drivers increasing their speed in anticipation of the higher posted speeds north of Barton Street. As a whole, the 85<sup>th</sup> percentile speeds are significantly higher than the 50 km/h posted speed on this section of road and higher than expected for a minor arterial road according to the 1999 TAC Geometric Design Guide for Canadian Roads.

**Figure 10 85<sup>th</sup> percentile speeds on Fruitland Road**



**2.1.4 Future Traffic Operations**

In order to calculate future traffic volume growth as accurately as possible, AECOM referred to the Council endorsed *Stoney Creek Urban Boundary Expansion (SCUBE) Area Transportation Master Plan (TMP) (Phases 1 & 2) Study Report*, dated November 2008, prepared for the City of Hamilton by Dillon Consulting Ltd. The SCUBE TMP study was undertaken to analyze and evaluate the transportation system that would be required in order to accommodate the urban boundary expansion into the lands east of Fruitland Road toward the Hamilton / Niagara border near Fifty Road. This study examined the future potential growth in two scenarios: minimum population/employment, maximum population/employment and utilized the City’s EMME/2 AM peak hour transportation model with a sub-area model for the SCUBE area to estimate travel demand.

In order to be conservative in the projections, AECOM utilized the volume data from the Maximum population and employment scenario. The “Future 2021 AM Peak Hour Turning Movement Volumes”, which is illustrated in Figure 13 in the SCUBE TMP exemplifies the projected turning movement volumes at the intersections of Highway 8 and Fruitland Road as well as at Barton Street and Fruitland Road. AECOM utilized the existing turning movement count volume data from each of these intersections to calculate the average growth rate per year that the SCUBE model utilized. The resultant growth rate was 3.6% per annum. This growth rate was then applied to our 5 and 10-year horizons to forecast the 2014 and 2019 turning movement volumes at the Study Area intersections. A quick comparison with the 2021 volumes from the SCUBE TMP indicated that our forecasts are in line with those in the master plan.

Intersection capacity analysis was conducted for the horizon year 2014 and 2019 with the projected traffic volumes.

In addition to completing capacity analysis at each study area intersection operational issues have also been identified that recommended geometric improvements required for future traffic conditions.

#### *2.1.4.1 Analysis for the Horizon Year 2014*

The summaries of volume to capacity ratios, delay and level of service from the Synchro software for the horizon year 2014 is shown in **Table 3**.

The results of the 2014 AM and PM peak hour operational analysis of the study area intersections indicate the following:

- The intersections of Barton Street and Fruitland Road, Highway 8 and Dewitt Road and Highway 8 and Jones Road are operating at/or over capacity for certain left-turn and shared through/through-right movements during the AM and PM peak periods; and
- The former intersection is failing (overall LOS F) during the AM peak period while the rest of the intersections are operating relatively well with acceptable LOS E or better.



**Table 3 2014 AM and PM Peak Hour Operational Analysis of the Study Area Intersections**

Intersection	Traffic Control	Approach/ Movement		Weekday AM				Weekday PM			
				v/c Ratio	Delay (sec)	95 <sup>th</sup> Queue (m)	%'ile LOS	v/c Ratio	Delay (sec)	95 <sup>th</sup> Queue (m)	%'ile LOS
Barton St & Fruitland Rd	Signalized	EB	L	1.31	184	129	F	1.21	152	109	F
			T T/R	0.16	16	15	B	0.21	21	22	C
		WB	L	0.33	33	15	C	0.32	35	19	D
			T T/R	0.56	34	30	C	0.65	40	43	D
		NB	L	0.50	19	21	B	0.45	18	17	B
			T/R	0.73	20	121	C	0.39	13	58	B
		SB	L	0.54	17	36	B	0.23	12	19	B
			T/R	1.06	74	213	E	1.14	101	298	F
		OVERALL		DELAY= 68SEC, V/C RATIO = 1.12, LOS=E				DELAY= 72SEC, V/C RATIO = 1.13, LOS=E			
		Sherwood Park Rd & Fruitland Rd	Unsignalized	EB	L/R	0.12	13	3	B	0.13	12
NB	L				-	8	0.1	A	0.04	8	1
SB	T			0.30	0	0	A	0.18	0	0	A
	T/R			0.16	0	0	A	0.35	0	0	A
OVERALL				DELAY=1SEC, LOS=A				DELAY=1SEC, LOS=A			
Highway 8 & Fruitland Rd	Signalized	EB	L	0.82	33	99	C	0.66	18	38	B
			T	0.35	9	53	A	0.41	11	49	B
			R	0.02	10	2	B	0.03	12	2	B
		WB	L	0.03	5	3	A	0.03	4	3.5	A
			T	0.50	8	79	A	0.45	7	75	A
			R	0.09	5	6	A	0.09	4	6	A
		NB	L	0.28	31	12	C	0.17	31	5.4	C
			T/R	0.19	29	17	C	0.08	29	8.5	C
		SB	L	0.66	41	34	D	0.46	33	25.5	C
			T/R	0.24	29	19	C	0.66	39	48	D
		OVERALL		DELAY=19SEC, V/C RATIO =0.78, LOS=B				DELAY=19SEC, V/C RATIO =0.66, LOS=B			
Highway 8 & Dewitt Rd.	Signalized	EB	L	<b>2.13</b>	558	134	F	0.94	83	81	F
			T/TR	0.74	31	72	C	1.01	62	133.5	E
		WB	L	0.52	46	19	D	1.72	408	56	F
			T/TR	<b>1.26</b>	159	119	F	1.12	106	112	F
		NB	L	1.07	99	87	F	0.39	15	22	B
			T/R	0.18	10	14	A	0.08	9	9	A
		SB	L	0.13	20	12	B	0.12	20	13	B
			T/R	0.82	41	109	D	0.59	28	70	C
OVERALL		DELAY=135 SEC, V/C RATIO =1.33, LOS= F				DELAY= 80 SEC, V/C RATIO =0.92, LOS= E					

Intersection	Traffic	Approach/	Weekday AM				Weekday PM					
Highway 8 & Jones Rd.	Unsignalized	EB	L	0.03	8	0.7	A	0.06	9	1.5	A	
			T/R	0.02	0	0	A	0.30	0	0	A	
		WB	L	0.37	9	13	A	0	0	0	A	
			T/R	0.03	0	0	A	0.33	0	0	A	
		NB	L	0.01	50	0.3	E	0.01	37	0.2	E	
			T/R	0.01	26	0.3	D	0	0	0	A	
		SB	L	0.34	66	10	<b>F</b>	0.45	46	16	E	
			T/R	0.06	10	2	A	0.19	14	5	B	
		<b>OVERALL</b>			<b>DELAY= 10 SEC, LOS= B</b>				<b>DELAY=4 SEC, LOS= A</b>			
		Barton St. & Dewitt Rd.	Signalized	EB	L	0.10	6	6	A	0.09	7	6
T/TR	0.23				6	17	A	0.02	7	3.3	A	
WB	L			0.20	7	12	A	0.22	9	24	A	
	T/TR			0.32	7	28	A	0.52	11	70	B	
NB	L			0.70	30	29.5	C	0.58	27	28	C	
	T/R			0.31	19	16	B	0.14	19	13.6	B	
SB	L/T/R			0.57	23	29	C	0.77	31	74	C	
<b>OVERALL</b>				<b>DELAY= 13 SEC, V/C RATIO =0.44, LOS= B</b>				<b>DELAY= 17 SEC, V/C RATIO =0.60, LOS= B</b>				
Barton St. & Jones Rd.	Unsignalized	EB	L/T/R	0.03	1	1	A	0.01	1	0.1	A	
		WB	L/T/R	0.01	1	0.2	A	0.02	1	0.5	A	
		NB	L/T/R	0.36	23	12	C	0.18	18	4.9	C	
		SB	L/T/R	0.31	19	10	C	0.37	19	12.6	C	
		<b>OVERALL</b>			<b>DELAY= 5SEC, LOS= A</b>				<b>DELAY= 5 SEC, LOS= A</b>			

#### 2.1.4.2 Analysis for the Horizon Year 2019

The summaries of volume to capacity ratios, delay and level of service from the Synchro software for the horizon year 2019 is shown in **Table 4**.

The results of the 2019 AM and PM peak hour operational analysis of the study area intersections indicates that the intersections of Barton Street and Fruitland Road, Highway 8 and Dewitt Road, Highway 8 and Barton Street, and Highway 8 and Jones Road are operating at or over capacity for certain left-turn and shared through/through-right movements during the AM and PM peak periods and also the former two intersections are failing (overall LOS F) during both the AM and PM peak period. The rest of the intersections are operating relatively well with acceptable LOS.

**Table 4 2019 AM and PM Peak Hour Operational Analysis of the Study Area Intersections**

Intersection	Traffic Control	Approach Movement		Weekday AM				Weekday PM			
				v/c Ratio	Delay (sec)	95 <sup>th</sup> %ile Queue (m)	LOS	v/c Ratio	Delay (sec)	95 <sup>th</sup> %ile Queue (m)	LOS
Barton St & Fruitland Rd	Signalized	EB	L	1.30	173	164	F	1.23	148	113	F
			T/R	0.17	14	16	B	0.22	15	19	B
		WB	L	0.36	34	18	C	0.34	28	18	C
			T/R	0.65	37	39	D	0.65	31	42	C
		NB	L	0.91	112	33	F	0.46	19	18	B
			T/R	1.00	60	209	E	0.53	16	74	B
		SB	L	1.51	306	56	F	0.37	14	26	B
			T/R	1.47	247	312	F	1.57	285	348	F
<b>OVERALL</b>		<b>DELAY=144SEC, V/C RATIO = 1.35, LOS= F</b>				<b>DELAY= 142SEC, V/C RATIO = 1.39, LOS= F</b>					
Sherwood Park Rd & Fruitland Rd	Unsignalized	EB	L/R	0.17	15	5	C	0.20	21	5.4	C
			NB	L	-	8	0.1	A	0.05	9	1.2
		SB	T	0.36	0	0	A	0.22	0	0	A
			T/R	0.19	0	0	A	0.42	0	0	A
		<b>OVERALL</b>		<b>DELAY=1SEC, LOS=A</b>							
Highway 8 & Fruitland Road	Signalized	EB	L	1.20	135	117	F	1.03	53	46	D
			T	0.43	12	56	B	0.53	15	51	B
			R	0.02	13	1.5	B	0.04	17	2	B
		WB	L	0.04	5	4	A	0.05	6	4.4	A
			T	0.61	11	108	B	0.56	11	92	B
			R	0.10	6	6.5	A	0.11	7	7	A
		NB	L	0.35	30	14	C	0.20	27	6.5	C
			T/R	0.21	28	19	C	0.07	24	9.5	C
		SB	L	0.73	44	40	D	0.43	28	30	C
			T/R	0.28	28	21	C	0.87	51	98.8	D
<b>OVERALL</b>		<b>DELAY=17SEC, V/C RATIO =0.72, LOS=B</b>				<b>DELAY=16SEC, V/C RATIO =0.46, LOS=B</b>					
Highway 8 & Dewitt Rd.	Signalized	EB	L	<b>2.55</b>	741	162	F	<b>1.12</b>	133	65	F
			T/TR	0.89	41	102	D	<b>1.22</b>	138	174	F
		WB	L	0.90	112	25	F	<b>2.03</b>	534	61	F
			T/TR	<b>1.50</b>	266	147	F	<b>1.34</b>	193	142	F
		NB	L	<b>1.27</b>	173	110	F	0.52	19	26	B
			T/R	0.23	11	21	B	0.11	9	12	A
		SB	L	0.17	20	14	C	0.15	20	14	B
			T/R	1.05	82	152	F	0.72	33	89.5	C
<b>OVERALL</b>		<b>DELAY=202 SEC, V/C RATIO =1.59, LOS= F</b>				<b>DELAY= 142 SEC, V/C RATIO =1.11, LOS= F</b>					

Intersection	Traffic	Approach	Weekday AM					Weekday PM						
Highway 8 & Jones Rd.	Unsignalized	EB	L	0.12	10	3	B	0.08	9	2	A			
			T/R	0.30	0	0	A	0.36	0	0	A			
		WB	L	-	0	0	A	0	0	0	A			
			T/R	0.44	0	0	A	0.40	0	0	A			
		NB	L	0.03	50	0.6	<b>F</b>	0.03	60	0.8	<b>F</b>			
			T/R	0.02	24	0.5	C	0	0	0	A			
		SB	L	0.38	65	12	<b>F</b>	0.79	112	33	<b>F</b>			
			T/R	0.16	17	4.4	C	0.27	16	8	C			
		<b>OVERALL</b>			<b>DELAY=3 SEC, LOS= A</b>					<b>DELAY=8 SEC, LOS= B</b>				
		Barton St. & Dewitt Rd.	Signalized	EB	L	0.15	7	8	A	0.14	9	7	A	
T/TR	0.30				8	26	A	0.02	8	3.6	A			
WB	L			0.28	10	18	A	0.28	11	31.4	B			
	T/TR			0.41	9	41	A	0.66	15	100.4	B			
NB	L			0.78	36	36	D	0.65	29	34	C			
	T/R			0.36	19	19	B	0.16	17	14.5	B			
SB	L/T/R			0.63	24	36	C	0.81	32	88.9	C			
<b>OVERALL</b>				<b>DELAY= 11 SEC, V/C RATIO =0.31, LOS= B</b>					<b>DELAY= 19 SEC, V/C RATIO =0.72, LOS= B</b>					
Barton St. & Jones Rd.	Unsignalized	EB	L/T/R	0.04	1	1	A	0.01	1	0.2	A			
		WB	L/T/R	0.01	1	0.2	A	0.03	1	0.6	A			
		NB	L/T/R	0.55	36	23	E	0.27	23	8	C			
		SB	L/T/R	0.46	28	18	D	0.54	28	23	D			
		<b>OVERALL</b>			<b>DELAY= 8 SEC, LOS= B</b>					<b>DELAY= 7 SEC, LOS= B</b>				

## 2.1.5 Summary

### 2.1.5.1 Road Safety

The review of the collision analysis shows that the following two intersections are experiencing a higher amount of collisions compared to the other locations within the study area:

- Fruitland Road and Barton Street; and
- Fruitland Road and Highway 8.

As revealed from the 85<sup>th</sup> percentile speed, which is above the posted speed limit, speeding could be an issue of these collision occurrences.

### 2.1.5.2 Existing Traffic Operations

The results of the 2009 AM and PM peak hour operational analysis of the study area intersections indicates that the intersection of Highway 8 and Dewitt Road is operating at/or over capacity for certain left-turn movements during the AM and PM peak periods. Otherwise, overall the intersections are operating relatively well with acceptable LOS E or better.

### 2.1.5.3 *Future Traffic operations*

The results of the 2014 AM and PM peak hour operational analysis of the study area intersections indicates that the intersections of Barton Street and Fruitland Road, Highway 8 and Dewitt Road and Highway 8 and Jones Road are operating at or over capacity for certain left-turn and shared through/through-right movements during the AM and PM peak periods. Also the former intersection is failing (overall LOS F) during the AM peak period, however, the remaining intersections are operating relatively well with acceptable LOS E or better.

The results of the 2019 AM and PM peak hour operational analysis of the study area intersections indicates that the intersections of Barton Street and Fruitland Road, Highway 8 and Dewitt Road, and Highway 8 and Jones Road are operating at or over capacity for certain left-turn and shared through/through-right movements during the AM and PM peak periods. Also the former two intersections are failing (overall LOS F) during both the AM and PM peak period. The remaining intersections are operating relatively well with acceptable LOS E or better.

Some additional capacity could be provided to the intersections which are failing under the future traffic condition through adding dedicated right/left turn lanes to the critical movements.

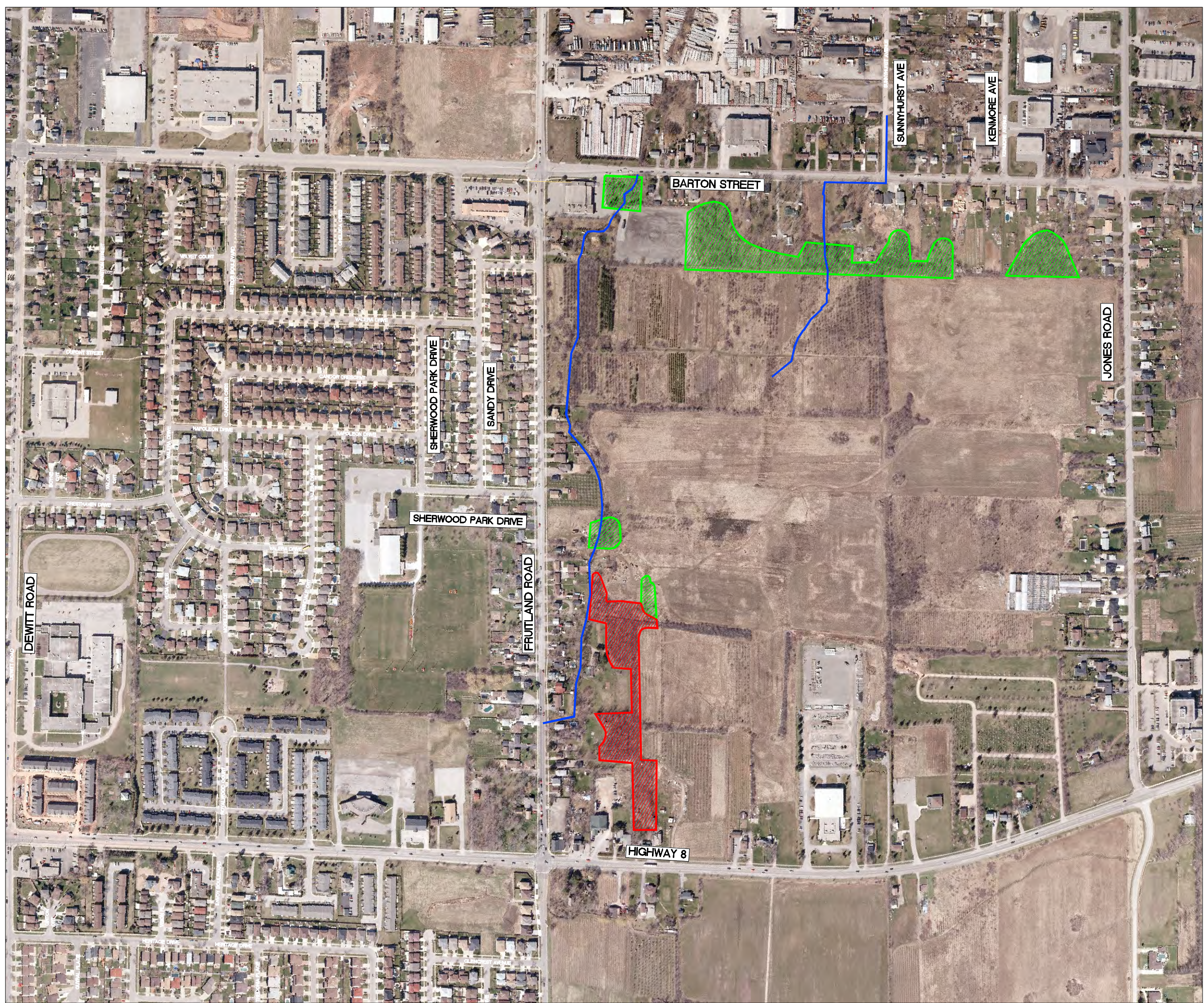
The complete Traffic Analysis Report can be found in **Appendix B**.

## 2.2 **Natural Environment**




Ecological (aquatic and terrestrial) investigations were completed for this study throughout 2009 based on four season data. The intent of these investigations were to:

- Identify the natural features potentially affected by the proposed road improvements;
- Determine the significance of those features observed;
- Provide input for a preliminary impact assessment and evaluation of alternatives;  
and
- Determine mitigation measures for those features that require protection.

The Natural Heritage Assessment report is included in **Appendix C. Figure 11** illustrates major natural heritage environmental features and constraints within the study area.



**LEGEND:**




-  MEDIUM CONSTRAINT
-  HIGH CONSTRAINT
-  WATER COURSE

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**FRUITLAND ROAD  
 CLASS ENVIRONMENTAL ASSESSMENT**

<b>FIGURE 11</b>	<b>NATURAL HERITAGE / ENVIRONMENTAL FEATURES &amp; CONSTRAINTS</b>
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BASE MAPPING PROVIDED BY: City of Hamilton AERIAL PHOTOGRAPHY 2007	<b>JULY 2010</b>
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### 2.2.1 Terrestrial Features

The study area is generally comprised of a mixture of natural and cultural vegetation communities, ranging from deciduous forest/swamps to agricultural fields. Of particular importance was the identification of a mature Fresh-Moist Oak – Hardwood Deciduous Forest community in the northern part of the study area which could be impacted by road realignment alternatives. Other features include a natural wetland canopy characterized as a Green Ash Mineral Deciduous Swamp located in the south western part of the study area.

### 2.2.2 Aquatic Features

Watercourses located in the study area include Watercourse #5 and an associated tributary.

#### **Watercourse #5**

Watercourse #5 is located adjacent to the east side of Fruitland Road and has been significantly altered to accommodate surrounding land uses. The watercourse is a permanently flowing system with habitat indicative of degraded, warm water systems. Due to numerous alterations, in-stream barriers present throughout the watercourse and results of no fish being seen or captured during recent sampling, it appears that Watercourse #5 does not function as direct fish habitat, but rather has an indirect function.

#### **Tributary to Watercourse #5**

This tributary drains to the north and into a storm sewer at Barton Street. The online storm sewer significantly limits the potential for this watercourse to function as indirect habitat due to the physical and hydraulic separation reaches. The tributary is narrow and shallow with terrestrial vegetation growing throughout.

#### **Summary**

There is the potential that a *Fisheries Act* Authorization would be required for potential modifications to Watercourse #5, in addition to approval under the *Conservation Authorities Act*. Permit and approval requirements would need to be confirmed through agency consultation once more information/details are known regarding potential watercourse works.

### 2.2.3 Significant Environmental Features

There are no Federally Recognized Features or Provincially Recognized Features and Species found within the project area.

## 2.3 Socio-Economic Environment

### 2.3.1 Existing Land Uses

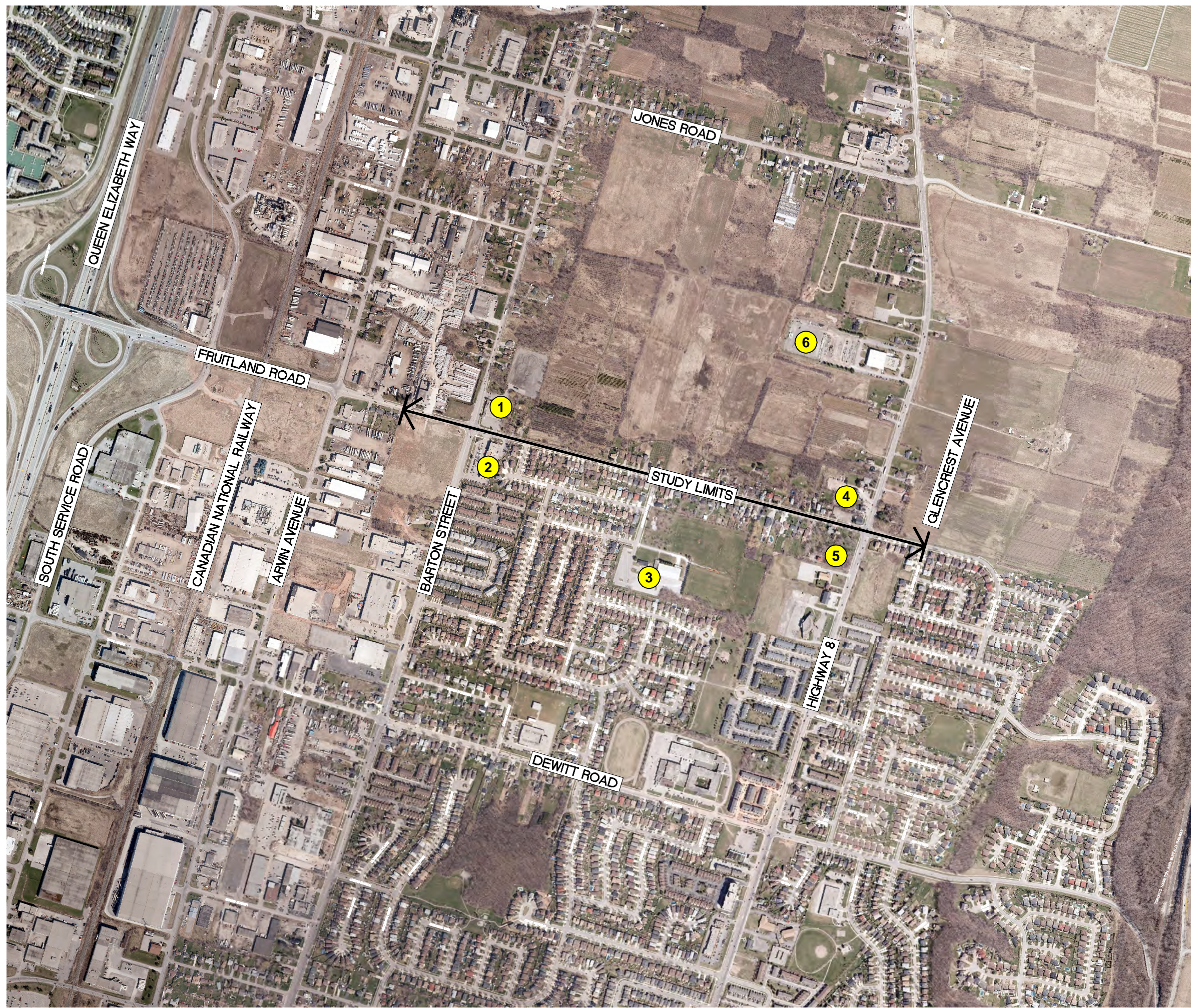
Fruitland Road provides access to the QEW provincial series highway via the QEW and Fruitland Road inter-change. As shown on **Figure 12** the Future Fruitland-Winona Secondary Plan Area land uses can be generally characterized as predominantly residential, institutional, open space and commercial businesses. Land uses along Fruitland Road from Barton Street to Highway 8 are predominantly single family residential on the west side and derelict agricultural (future development) on the east side including single family residences north of Highway 8.

Notable commercial/retail uses in the study area include the Grand Olympia Banquet Centre and the Fruitland Square Plaza/office space respectively located at the south east and west intersection of Barton Road and Fruitland Road. Located west of Fruitland Road is the Saltfleet Arena and Sherwood Park which includes highly used recreational sports fields which are surrounded by single family and townhouse residences. Institutional land uses located at the east and west corners of the intersection of Highway 8 and Fruitland Road includes the Wesley United Church, Fruitland Cemetery and Orchard Park Secondary School located on Dewitt Road. The only noted utility land use in the study area is the Horizon Utilities operations and administration centre located on the north side of Highway 8, east of Fruitland Road. Existing land uses are illustrated on **Figure 12**.

### 2.3.2 Future Land Uses

Future land uses include the future development of the Fruitland-Winona Secondary Plan area that is part of the Stoney Creek Urban Boundary Expansion (SCUBE). **Appendix D** presents a preliminary development concept that was prepared through the Fruitland-Winona Secondary Plan Process. Other possible future land uses include the development of vacant lands associated with the Grand Olympia Banquet Centre located at the south east corner of Barton Street and Fruitland Road.





**LEGEND:**

- ① OLYMPIA BANQUET CENTRE
- ② FRUITLAND SQUARE PLAZA
- ③ SALTFLEET ARENA SHERWOOD PARK
- ④ WESLEY UNITED CHURCH
- ⑤ FRUITLAND CEMETERY
- ⑥ HORIZON CENTRE

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FRUITLAND ROAD CLASS ENVIRONMENTAL ASSESSMENT	
FIGURE 12	<b>EXISTING LAND USES</b>
BASE MAPPING PROVIDED BY: City of Hamilton AERIAL PHOTOGRAPHY 2007	
JULY 2010	
111513	

## 2.4 Archaeological and Cultural Built Heritage Resources

A Stage 1 Archaeological Assessment was completed in February 2007 in support of the Watercourse 5 and 6 Class EA (see **Appendix E**). The findings and recommendations of this assessment were used for this study since the project limits overlapped. The report concluded that there is moderate potential for the discovery of archaeological resources in the undisturbed portions of any fields which are currently used for agricultural purposes and prior to any construction activities in undisturbed lands; a Stage 2 Archaeological Investigation will be required.

## 2.5 Planning Considerations

### 2.5.1 City of Hamilton Truck Route Master Plan

In May 2008, the City initiated the development of a comprehensive Truck Route Master Plan that would review issues pertaining to:

- Hamilton as a major transportation centre (major port, air cargo hub, road and rail routes that serve the busiest transportation corridor in Canada); and
- Ensuring that a truck network for the efficient movement of goods that is safe and minimizes the impact on the environment and the community is in place.

Recommendations from the Master Plan included maintaining Fruitland Road's designation as a full time truck route, however, on July 8, 2010 City Council decided to re-designate Fruitland Road as a part time truck route (7 a.m. to 7 p.m.) on an 18 month trial period.

### 2.5.2 1992 Fruitland Road Realignment (Highway 8 to Barton Street) Class EA ESR

The Regional Municipality of Hamilton-Wentworth (now City of Hamilton) initiated the Fruitland Road Realignment Class EA in 1989 to look at ways to re-establish a Regional Arterial within the network in order to better serve the through traffic as well as to plan for future demand and to provide a safe, functional environment for the residential community along and adjacent to Fruitland Road.

The Fruitland Road Realignment ESR was filed in 1992 with the following recommendations:

- Realignment of Fruitland Road approximately 360 metres east of the existing alignment at Highway 8, reconnecting with the existing alignment at Barton Street;
- Provide a two lane rural roadway within a basic 36 metre right-of-way;
- Provide access to the new alignment between Highway 8 and Barton Street (from the existing Fruitland Road alignment) within a basic 26 metre right-of-way via the extension of Sherwood Park Road;
- Provide left turn lanes at all three intersections; and
- Provide traffic signals at the intersection of Highway 8 and the realigned Fruitland Road.

Under the original MEA Class EA document (2000), if a 5 year time period has occurred between the filing and approval of an ESR and commencement of construction of the project then a review (i.e., this study) of the planning and design process as well as the

current environmental setting is warranted. As discussed earlier and below, the 1992 ESR recommendations were not implemented.

### 2.5.3 Red Hill Valley Parkway

In 1997, the Provincial Government reversed their original decision to not approve the proposed Red Hill Valley Parkway; subsequently the Red Hill Valley Parkway was constructed and opened in 2008.

As a result of the high priority status of the Red Hill Valley Parkway project, the realignment of Fruitland Road (as per the 1992 ESR) was suspended from becoming implemented until the Stoney Creek Urban Boundary Expansion (SCUBE) which includes Fruitland Road as the western edge of the urban area expansion boundary. Since the opening of the Red Hill Valley Parkway in November 2007, notable traffic patterns and characteristics of the Regional transportation network have resulted including vehicular and truck movements along Fruitland Road. These changes were examined as part of this study and assisted in the generation of alternative solutions.

### 2.5.4 City of Hamilton – Stoney Creek Urban Boundary Expansion (SCUBE) Area Transportation Master Plan

The SCUBE Area Transportation Master Plan (TMP) was endorsed by the City of Hamilton's Public Works Committee on October 6, 2008 and finalized and approved by Council in January 2009. The SCUBE TMP followed the MEA Class EA process and identified the need for an East-West Collector Road which would connect from Sherwood Park Road to Jones Road. The SCUBE TMP also identified two separate projects including the Municipal Class EA for Fruitland Road and the Fifty Road Transportation Hub.

### 2.5.5 Fruitland – Winona Secondary Plan (Formerly SCUBE)

The City of Hamilton has prepared (pending Ministerial approval) the Fruitland-Winona (formerly SCUBE) Secondary Plan to establish the appropriate land use designations, a neighbourhood transportation network, infrastructure requirements, development standards, policy framework and implementation strategy. The Secondary Plan will guide future investment and development in the area and will reflect the conclusions of this report. The Secondary Plan has identified the need for a new North-South Road between Highway 8 and Barton Street and mid-block between Fruitland Road and Jones Road.

The alternative solutions developed for this study considered the recommendations of the Fruitland – Winona Secondary Plan exercise.

### 2.5.6 Watercourse 5 and 6 Class Environmental Assessment Study

The City of Hamilton Watercourse 5 & 6 Class EA was initiated in March 2007 to assess existing flooding concerns and recommend watercourse system improvements in the area of Fruitland Road and Barton Street. The Class EA determined the most appropriate action needed to address drainage deficiencies to support further

development within the watershed. The recommended alternative was to replace all culverts with hydraulic and structural deficiencies and undertake channel works. This alternative also included traditional stormwater management for new developments.

#### 2.5.7 Niagara Escarpment Plan Area

The study area is located outside of the Niagara Escarpment Plan Area; therefore, policies contained in the Niagara Escarpment Plan do not apply to this study.

#### 2.5.8 Greenbelt Planning Area

The study area is located outside of the Greenbelt Planning Area, therefore, policies contained in the Greenbelt Plan (Ministry of Municipal Affairs and Housing, 2005) do not apply to this study.

### **3. Phase 1: Problem and Opportunity Identification**

#### **3.1 Problem and Opportunity Statement**

Phase one of the five phased Municipal Class EA planning process requires the proponent of an undertaking (the City) to first document factors leading to the conclusion that improvements to the existing conditions of the road are required, and ultimately develop a clear statement of the identified problems to be investigated and/or opportunity to be realized.

As such, the problem and opportunity statement is the principle starting point in the undertaking of a Municipal Class EA and becomes the central theme integrating elements of the project. It also assists in setting the scope of the project.

The Problem and Opportunity Statement for this Municipal Class EA is stated as follows:

- Current concerns for the Fruitland Road residents are vehicle speeds/aggressive driving of trucks and other vehicles, which can cause difficulty entering and exiting fronting driveways along Fruitland Road. The residents believe that these factors contribute to the traffic safety issues in the study area; and
- The City of Hamilton's Fruitland-Winona Secondary Plan process presents an opportunity to address some of the problems on Fruitland Road and to establish a lay out of the future road network that will connect to Fruitland Road and distribute traffic for the proposed growth area.

In order to address the above problem/opportunity statement, the City initiated this Class EA planning process in 2008 which updated existing conditions and identifies and evaluates alternative solutions.

## 4. Phase 2: Alternative Solutions

### 4.1 Screening of Alternative Solutions

#### 4.1.1 Fruitland Road Widening

The Class EA process recognizes that there are many ways of solving a particular problem and requires various alternative solutions to be considered. A possible alternative solution to address the problem and opportunity statement would be to widen Fruitland Road (i.e., provide a centre turning lane) which would improve traffic safety and operations. However, as there would be significant property taking and encroachment on the residences fronting Fruitland Road, this alternative was screened out and not carried forward for evaluation.

#### 4.1.2 Traffic Calming

Traffic calming is based on the introduction of physical roadway features that can reduce negative effects of motor vehicles, alter driver behaviour and improve conditions for non-motorized street users. Typical engineered traffic calming measure includes vertical features such as speed bumps and raised cross walks and horizontal features such as medians, lane narrowing and bump outs. Non-engineered measures would include street parking, speed radar trailer and multi-way stops.

In the case of Fruitland Road, considering its current road cross section and that it is a designated truck route the use of traffic calming is limited to the introduction of Gateway Features which are included in Alternatives 1 and 3D.

#### 4.1.3 Fruitland Road South and North Bound Lane Closures

South bound lane closure at Barton Street or north bound closure at Highway 8 were not considered feasible due to lack of space and land availability to allow for vehicles to turn around at the restricted access or blocking of driveways in addition to undesirable City service vehicle turning movements.

### 4.2 Rationale for Selection of Alternative Solutions

Alternative solutions were developed to address the problem and opportunity statement with a specific focus on improving safety and traffic operations on Fruitland Road. In addition to the “Do Nothing” alternative specific road realignment alternatives were developed based on carrying forward with the realignment option proposed in the 1992 ESR. For this alternative, two variations (referred to as Alternative 2 series) were developed with one including a cul-de-sac on Fruitland Road north of Sandy Drive. The second Alternative 2 series option includes two cul-de-sacs, on Fruitland Road with one located north of Sandy Drive and the other north of Highway 8.

A second series (referred to as Alternative 3 series) of road relocation options was developed based on utilizing a proposed new North-South road east of Fruitland Road as identified through the Fruitland-Winona Secondary Plan process. The proposed new North-South road would intersect with Sunnyhurst Avenue at Barton Street and extend

southerly to Highway 8. Four (4) options for the proposed new North-South road alternative were developed as follows:

- A cul-de-sac located south of Barton Street on Fruitland Road;
- Partially closed access on Fruitland Road south of Barton Street and Sherwood Drive (north and south bound restrictions). To restrict traffic from using Fruitland Road a barrier would be located across the northbound lane, north of Sandy drive, permitting only southbound traffic to enter. Also a barrier would be located across the southbound lane, south of Sherwood Drive, permitting only northbound traffic to enter;
- Partially closed access on Fruitland Road south of Barton Street (north bound restrictions only). A barrier would be located across the northbound lane, north of Sandy drive, permitting only southbound traffic to enter; and
- Maintain Fruitland Road with no access restrictions in conjunction with implementation of gateway features and pedestrian crosswalks as enhancement features at the intersections of Fruitland Road at Barton Street and Highway 8.

#### 4.3 Identification and Description of Alternative Solutions

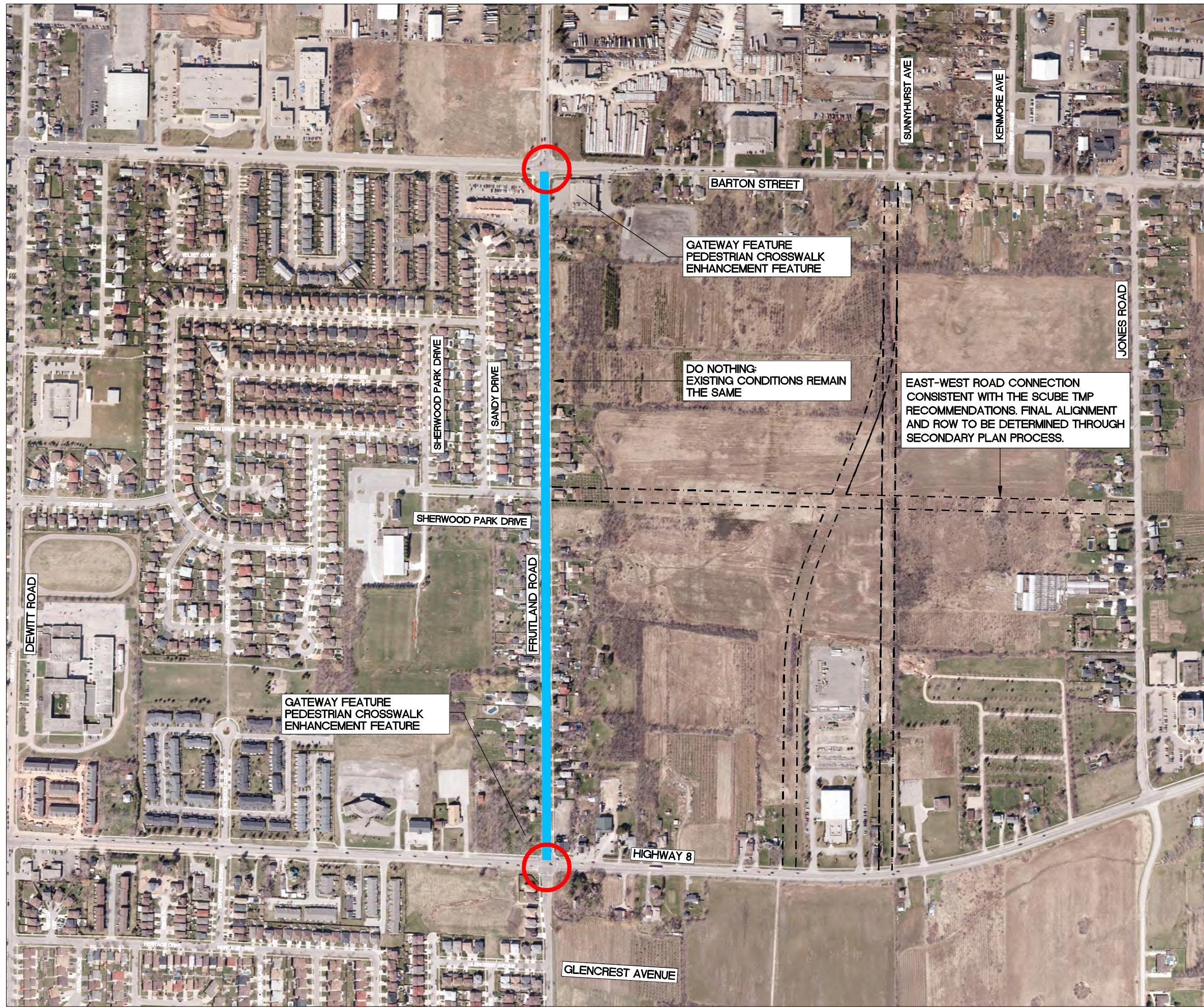
Based on the above, the following seven alternative solutions were identified and evaluated as part of this study and are described below in **Table 5** as well as illustrated on **Figures 13-19**.

**Table 5 Planning Alternative Solutions**

Alternative	Planning Solutions	Description
Alternative 1	Do Nothing	<ul style="list-style-type: none"> <li>• No improvements or changes would be undertaken to existing alignment of Fruitland Road between Barton Street and Highway 8.</li> <li>• The “Do Nothing” alternative represents what would likely occur if none of the alternative solutions were implemented.</li> <li>• Fruitland Road would receive a gateway feature and enhanced pedestrian crosswalk to signify that traffic is entering into a residential area.</li> </ul>
Alternative 2A	Realign Fruitland Road	<ul style="list-style-type: none"> <li>• Realign Fruitland Road 360 metres east of existing intersection with Highway 8.</li> <li>• Maintain local access on existing Fruitland Road.</li> <li>• No access to new realigned Fruitland Road at Sandy Drive.</li> <li>• Intersection at Sherwood Park Road and new realigned Fruitland Road.</li> <li>• Truck route designation relocated to new realigned Fruitland Road.</li> <li>• Integrated with Secondary Plan development concepts.</li> </ul>
Alternative 2B	Realign Fruitland Road	<ul style="list-style-type: none"> <li>• Alternative 2B is the same as Alternative 2A with the following exception:</li> </ul>

		<ul style="list-style-type: none"> <li>- Cul-de-sac at existing Fruitland Road at Highway 8 (use of church parking lot for cul-de-sac).</li> </ul>
Alternative 3A	New North-South Road	<ul style="list-style-type: none"> <li>• Construct new North-South Road east of Fruitland Road intersecting at Barton Street and Sunnyhurst Avenue to the north and intersecting Highway 8.</li> <li>• New North-South Road would become the new designated truck route.</li> <li>• Cul-de-sac at existing Fruitland Road south of Barton Street.</li> <li>• Integrated with Secondary Plan development concepts.</li> </ul>
Alternative 3B	New North-South Road	<ul style="list-style-type: none"> <li>• Alternative 3B is the same as Alternative 3A with the following exception:               <ul style="list-style-type: none"> <li>- Cul-de-sac at existing Fruitland Road south of Barton Street is replaced with a one way southbound entry access (i.e., barrier) south of the Fruitland Square Plaza and one way northbound entry access at Sherwood Park Road.</li> </ul> </li> </ul>
Alternative 3C	New North-South Road	<ul style="list-style-type: none"> <li>• Alternative 3C is the same as Alternative 3B with the following exception:               <ul style="list-style-type: none"> <li>- One way northbound entry access at Sherwood Park Road is removed.</li> </ul> </li> </ul>
Alternative 3D	New North-South Road	<ul style="list-style-type: none"> <li>• Alternative 3D is the same as Alternative 3A with the following exceptions:               <ul style="list-style-type: none"> <li>- Fruitland Road would receive a gateway feature and enhanced pedestrian crosswalk to signify that traffic is entering into a residential area;</li> <li>- Trucks would continue to use Fruitland Road until the new North-South Road was constructed and designated as the truck route; and</li> <li>- Once development takes place in the growth area and the trucks are rerouted to the new North-South Road, Fruitland Road would be examined for re-classification, to a potential classification lower than an Arterial Road; therefore the warrants for various traffic calming/controls would be examined at that time.</li> </ul> </li> </ul>





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**FRUITLAND ROAD  
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**FIGURE 13**                      **ALTERNATIVE 1:  
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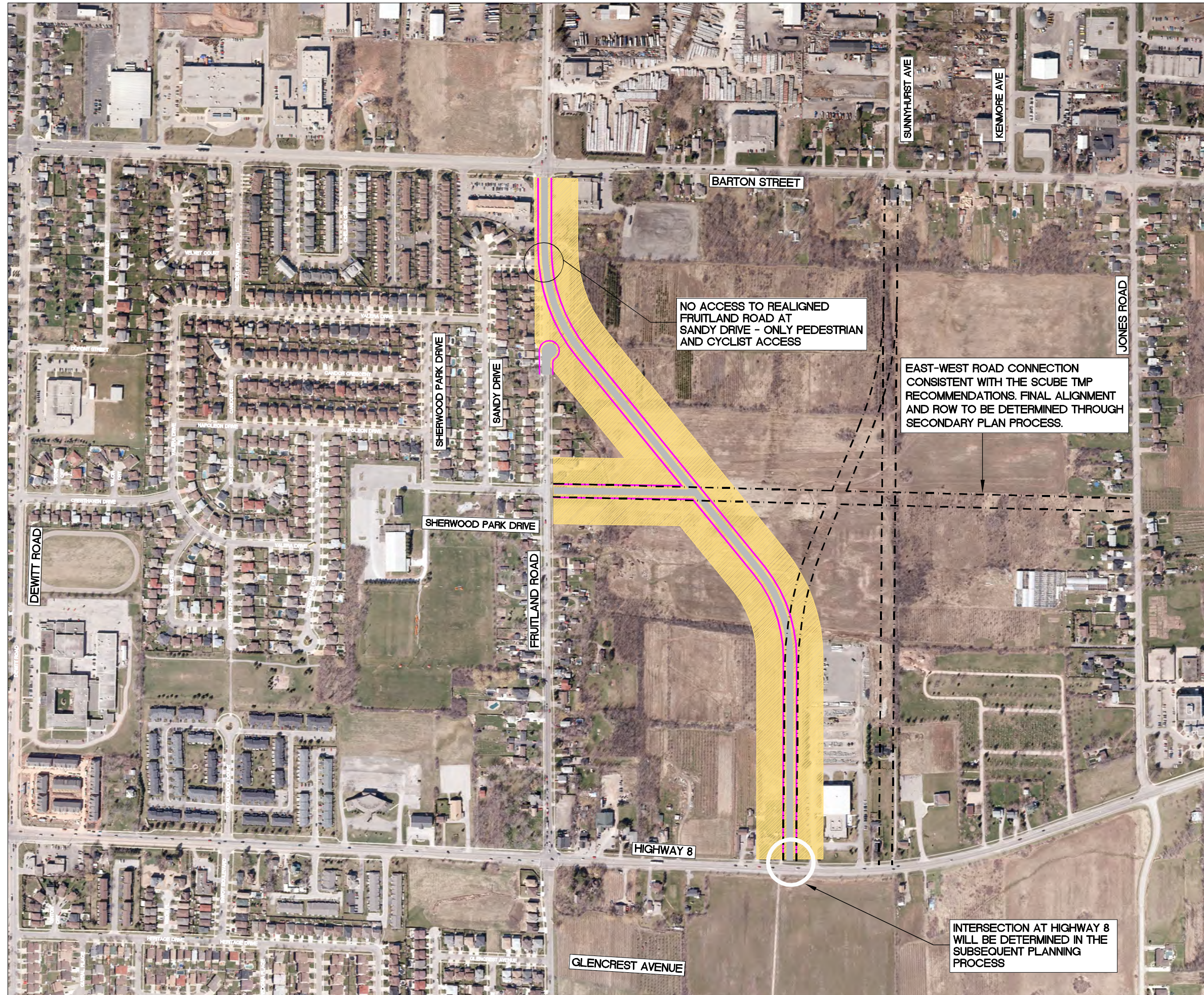
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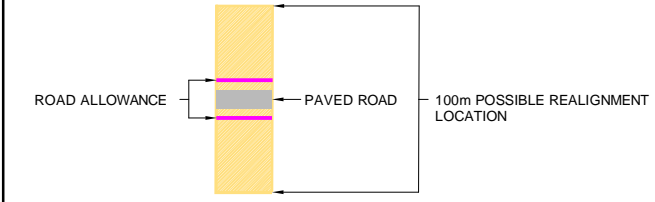




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**FRUITLAND ROAD  
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**FIGURE 14**

**ALTERNATIVE 2A:**  
 REALIGN FRUITLAND ROAD 360m EAST WITH CLOSED ACCESS AT SANDY DRIVE WITH AN INTERSECTION AT SHERWOOD DRIVE AND REALIGNED FRUITLAND ROAD AND MAINTAIN LOCAL ACCESS ON EXISTING FRUITLAND ROAD

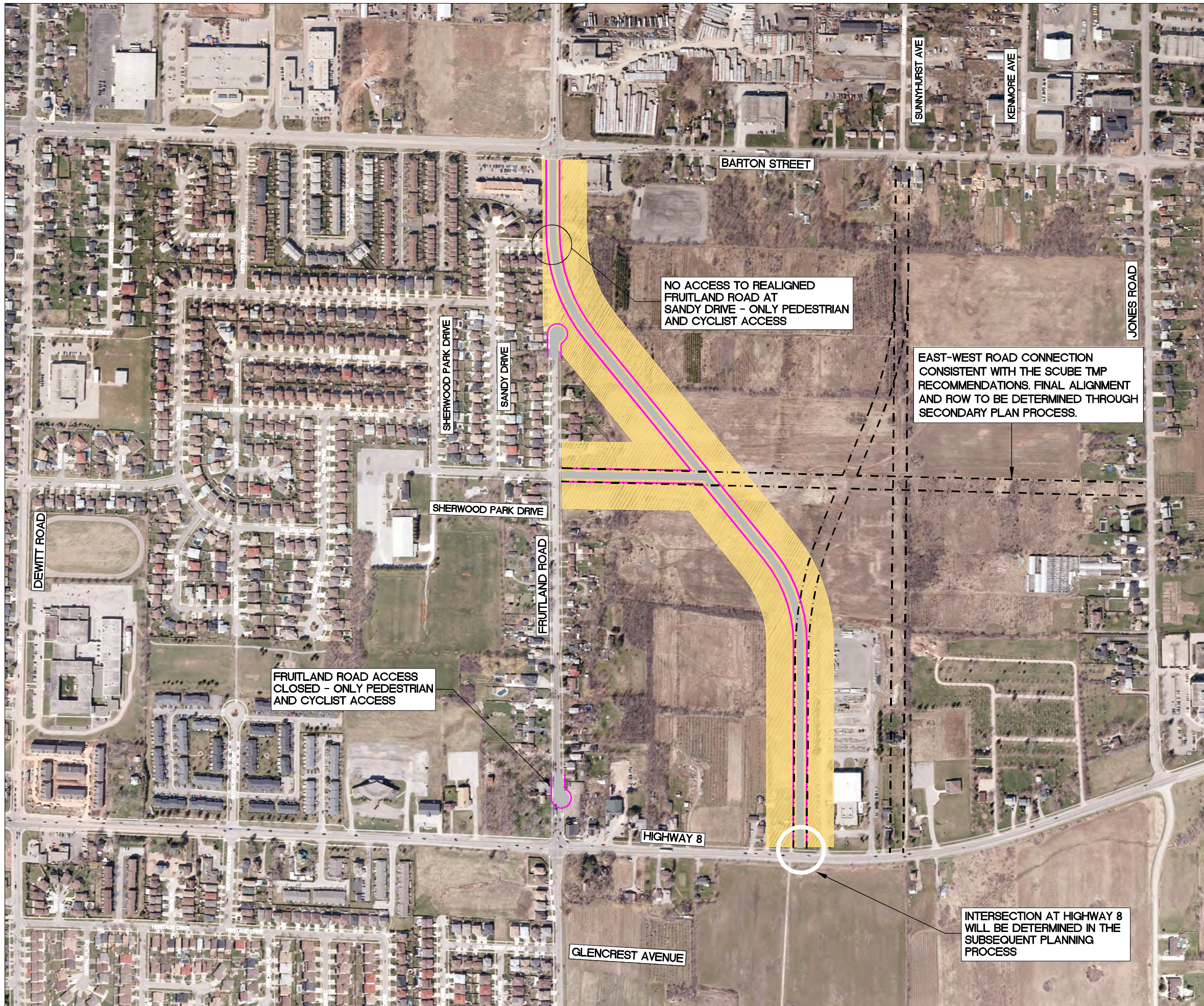
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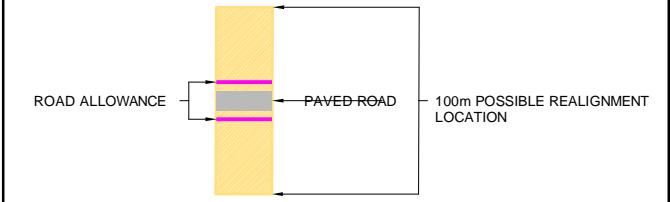
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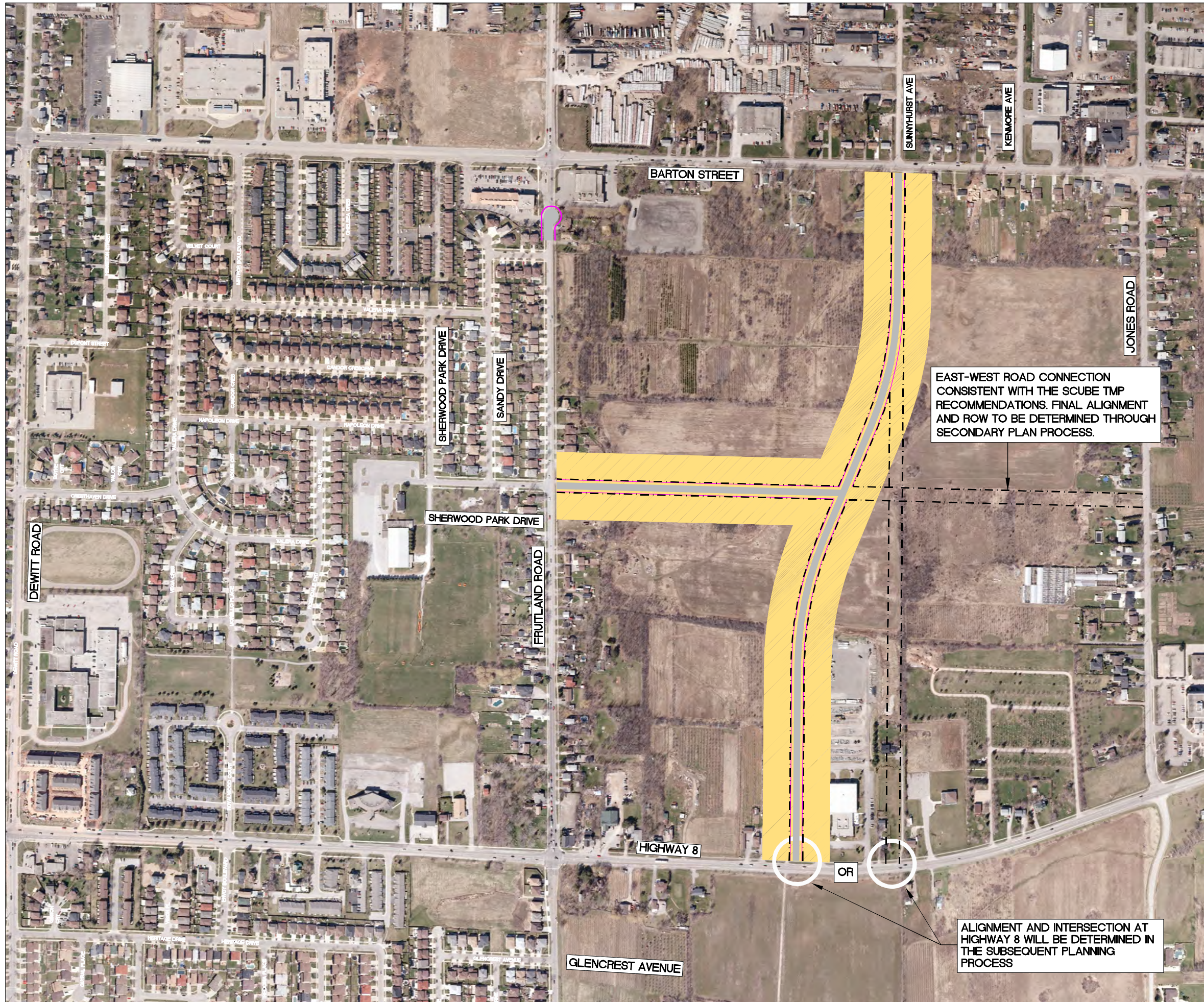
**FRUITLAND ROAD CLASS ENVIRONMENTAL ASSESSMENT**

<p><b>FIGURE 15</b></p>	<p><b>ALTERNATIVE 2B:</b>                  REALIGN FRUITLAND ROAD 360m EAST WITH CLOSED ACCESS AT SANDY DRIVE WITH AN INTERSECTION AT SHERWOOD DRIVE AND REALIGNED FRUITLAND ROAD AND CUL-DE-SAC EXISTING FRUITLAND ROAD AT HIGHWAY 8</p>
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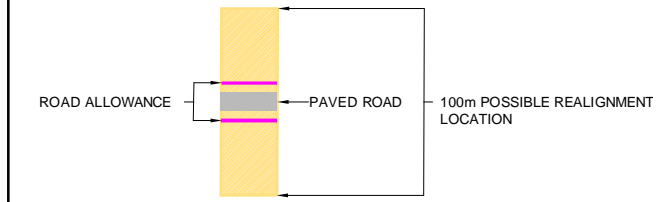
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EAST-WEST ROAD CONNECTION CONSISTENT WITH THE SCUBE TMP RECOMMENDATIONS. FINAL ALIGNMENT AND ROW TO BE DETERMINED THROUGH SECONDARY PLAN PROCESS.

ALIGNMENT AND INTERSECTION AT HIGHWAY 8 WILL BE DETERMINED IN THE SUBSEQUENT PLANNING PROCESS

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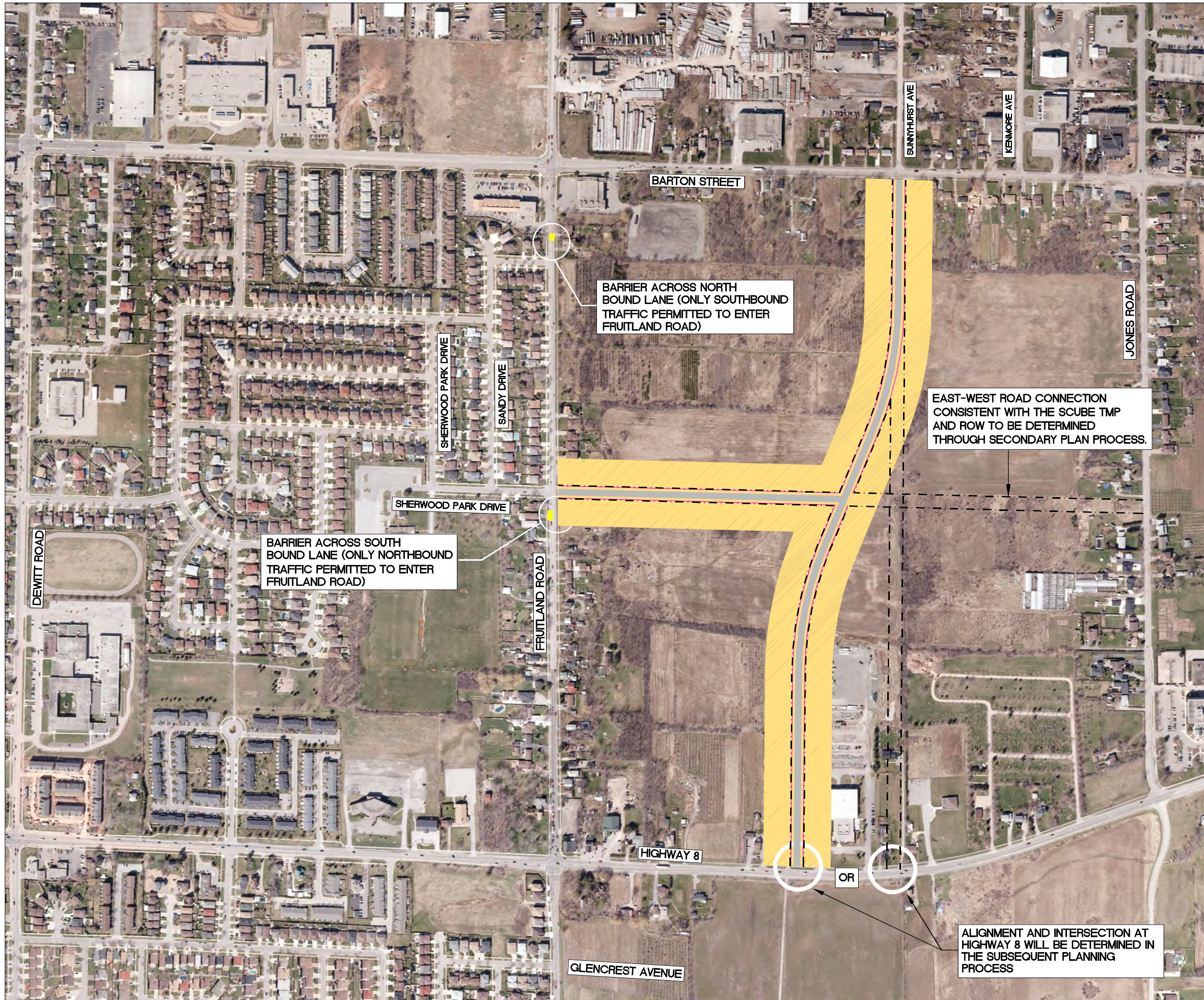
**FIGURE 16** **ALTERNATIVE 3A:**  
 NEW NORTH-SOUTH ROAD SOUTH OF SUNNYHURST AVENUE WITH NEW BARTON STREET AND HIGHWAY 8 INTERSECTIONS AND CUL-DE-SAC EXISTING FRUITLAND ROAD SOUTH OF BARTON STREET

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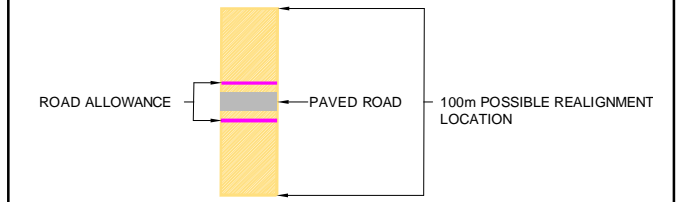
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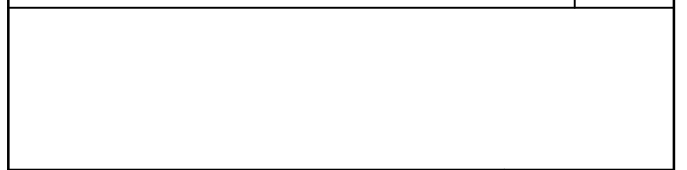
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**FIGURE 17**  
**ALTERNATIVE 3B:**  
 NEW NORTH-SOUTH ROAD SOUTH OF SUNNYHURST AVENUE WITH NEW BARTON STREET AND HIGHWAY INTERSECTIONS AND PARTIALLY CLOSED ACCESS ON FRUITLAND ROAD SOUTH OF BARTON STREET AND SHERWOOD DRIVE (NORTH AND SOUTH BOUND ACCESS RESTRICTIONS)

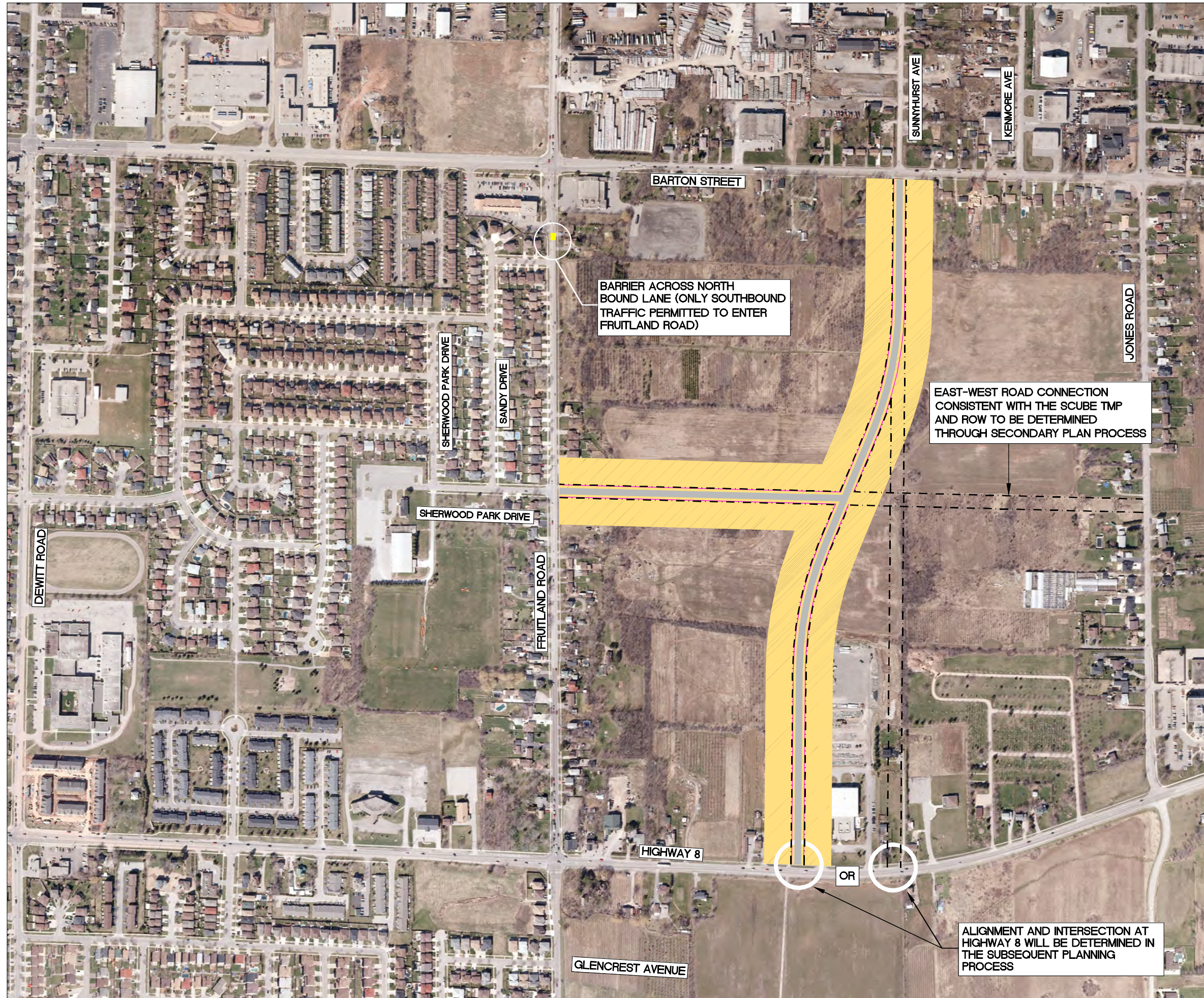
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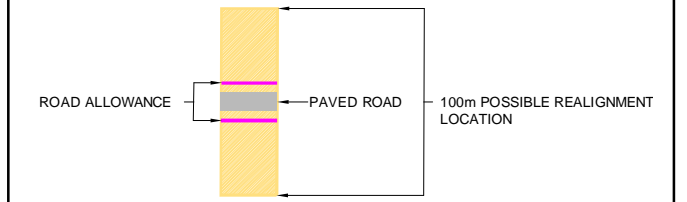


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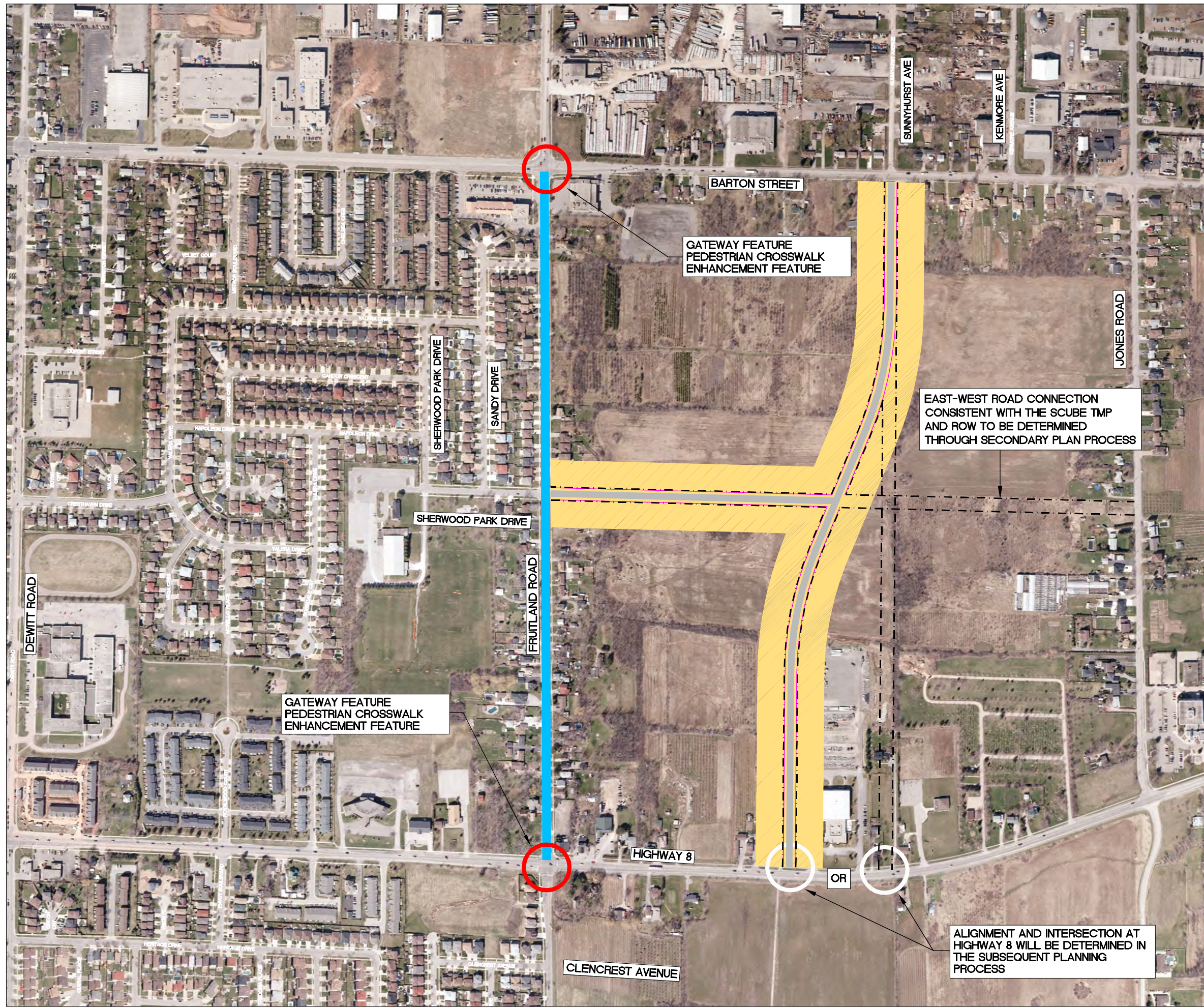
**FIGURE 18** **ALTERNATIVE 3C:**  
 NEW NORTH-SOUTH ROAD SOUTH OF SUNNYHURST AVENUE WITH NEW BARTON STREET AND HIGHWAY INTERSECTIONS AND PARTIALLY CLOSED ACCESS OF FRUITLAND ROAD SOUTH OF BARTON STREET (NORTH BOUND ACCESS RESTRICTIONS ONLY)

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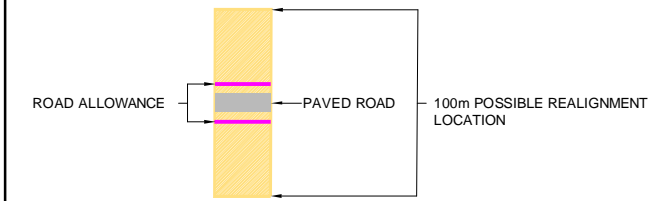
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**FIGURE 19** **ALTERNATIVE 3D:**  
 NEW NORTH-SOUTH ROAD SOUTH OF SUNNYHURST AVENUE WITH NEW BARTON AND HIGHWAY 8 INTERSECTIONS AND MAINTAIN EXISTING FRUITLAND ROAD ROAD (NO ACCESS RESTRICTIONS)

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#### 4.4 Evaluation Framework and Criteria

An evaluation framework was developed as presented in **Table 6**, including technical considerations and environmental components that address the broad definition of the environment as described in the *EAA* and those based on comments received from relevant agencies.

**Table 6 Evaluation Framework Components**

Component	Description
Transportation Engineering	Component that evaluates the technical suitability and other engineering aspects of the road network system.
Socio-Economic Environment	Component that evaluates the potential effects on residents, neighbourhoods, businesses, community character, social cohesion and community features, in addition to municipal development objectives.
Natural Environmental	Component that evaluates the potential effects on the natural and physical aspects of the environment (e.g., air, land, water and biota) including natural heritage/ environmentally sensitive areas.
Cultural Environment	Component that evaluates the potential effects on historical/archaeological and built heritage resources.
Cost	Component that evaluates the proposed financial costs to construct the road improvements.

**Table 7** presents the evaluation criteria based on the above components used to evaluate the alternative solutions.

**Table 7 Criteria for Evaluating Alternative Solutions**

Component	Evaluation Criteria
Transportation Engineering	<ul style="list-style-type: none"> <li>• Traffic operations</li> <li>• Overall traffic safety and improved pedestrian/cyclist safety (e.g., sidewalks, bike lanes)</li> <li>• Truck traffic and vehicle speed</li> <li>• Accessibility (local access) and turning movements</li> <li>• Fire and emergency service / waste management / snow removal / school bus services</li> <li>• Future traffic network (i.e., connection to future road networks)</li> <li>• Future land use patterns (i.e., compatibility with future land uses and opportunity to facilitate development)</li> <li>• Timing of improvements</li> </ul>
Socio-Economic Environment	<ul style="list-style-type: none"> <li>• Property requirements (e.g., impact to residences, businesses, agricultural lands)</li> <li>• Impact to business operations</li> <li>• Noise and air quality</li> </ul>
Natural Environmental	<ul style="list-style-type: none"> <li>• Impacts to terrestrial/vegetation (e.g., street trees, vegetation)</li> <li>• Impacts to aquatic/watercourses (i.e., stream crossings)</li> <li>• Impacts to wildlife</li> </ul>
Cultural Environment	<ul style="list-style-type: none"> <li>• Impacts to archaeological resources</li> <li>• Impacts to built heritage and cultural landscape</li> </ul>
Cost	<ul style="list-style-type: none"> <li>• Overall construction and maintenance costs</li> <li>• Costs to the City of Hamilton</li> </ul>



#### 4.5 Use of Descriptive Information and Qualitative Evaluation

A detailed assessment of each alternative was completed based on the previously described evaluation components. The evaluation used for this study was not based on a numerical ranking system. To ensure statistical validity, such an approach would have to strictly adhere to statistical methods that are often difficult to apply in a multi-faceted project such as a Municipal Class EA. Instead, a descriptive or qualitative evaluation was used to consider the suitability and feasibility of alternative solutions. In this respect, trade-offs considering the advantages or disadvantages of each alternative to address the problem and opportunity statement with the least environmental effects and the most technical benefits will result in a higher priority and forms the rationale for the identification of the preferred solution.

#### 4.6 Evaluation of Alternative Solutions

The following **Table 8** includes an evaluation summary table including ranking of alternative solutions. A comparative evaluation matrix was also prepared and used to present the evaluation of the alternatives as shown in **Table 9**.

**Table 8 Summary of Evaluation of Alternative Solutions**

CRITERIA	MEASURE	ALTERNATIVE SOLUTIONS							
		ALTERNATIVE 1	ALTERNATIVE 2: Realign Fruitland Road		ALTERNATIVE 3: New North-South Road				
			2A	2B	3A	3B	3C	3D	
Transportation / Engineering	Traffic Operations								
	Overall Traffic Safety and Improved Pedestrian/ Cyclist safety (e.g., sidewalks, bike lanes)								
	Truck Traffic								
	Vehicle Speed								
	Accessibility (local access) and Turning Movements								
	Fire and Emergency Service / Waste Management / Snow Removal / School Bus Services								
	Future Traffic Network (i.e., connection to future road networks)								
	Future Land Use Patterns (i.e., compatibility with future land uses and opportunity to facilitate development)								
	Timing of Improvements								
Social Environment	Property Requirements (e.g., impact to residences, businesses, agricultural lands)								
	Impact to Business Operations								
	Noise and Air Quality								



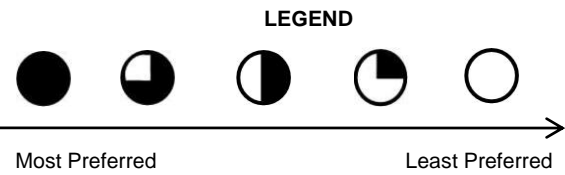
Table 9 Evaluation of Alternative Solutions

CRITERIA	MEASURE	ALTERNATIVE SOLUTIONS									
		ALTERNATIVE 1: Do Nothing Includes Gateway Feature/Pedestrian Crosswalk enhancements at Fruitland Road, Barton Street and Highway 8 intersections	ALTERNATIVE 2: Realign Fruitland Road		ALTERNATIVE 3: New North-South Road <sup>1</sup>		ALTERNATIVE 3B		ALTERNATIVE 3C		ALTERNATIVE 3D
			ALTERNATIVE 2A Realign Fruitland Road 360m east with closed access at Sandy Drive with an intersection at Sherwood Park Road and Realigned Fruitland Road and maintain local access on existing Fruitland Road	ALTERNATIVE 2B Realign Fruitland Road 360m east with closed access at Sandy Drive with an intersection at Sherwood Park Road and Realigned Fruitland Road and cul-de-sac existing Fruitland Road at Highway 8	ALTERNATIVE 3A New North-South Road south of Sunnyhurst Avenue with new Barton Street and Highway 8 intersections and cul-de-sac existing Fruitland Road south of Barton Street	ALTERNATIVE 3B New North-South Road south of Sunnyhurst Avenue with new Barton Street and Highway 8 intersections and partially closed access on Fruitland Road south of Barton Street and Sherwood Park Road (northbound and southbound access restrictions)	ALTERNATIVE 3C New North-South Road south of Sunnyhurst Avenue with new Barton Street and Highway 8 intersections and partially closed access on Fruitland Road south of Barton Street (northbound access restrictions only)	ALTERNATIVE 3D New North-South Road south of Sunnyhurst Avenue with new Barton Street and Highway 8 intersections and Maintain Existing Fruitland Road (no access restrictions) that includes Gateway Feature/Pedestrian Crosswalk enhancements at Fruitland Road, Barton Street and Highway 8 intersections			
Transportation / Engineering	Traffic Operations	<ul style="list-style-type: none"> <li>Traffic operations would remain status quo at the intersections and through the mid-block section of Fruitland Road and therefore no improvements to existing conditions.</li> <li>Through vehicle and truck traffic movements would continue on existing Fruitland Road.</li> <li>Connectivity to the QEW would remain the same.</li> </ul>	<ul style="list-style-type: none"> <li>Permanent closure (cul-de-sac) at Fruitland Road and Barton Street would re-distribute the traffic to adjacent north-south roads to the west of the study area and potentially impact traffic operations on those roads (i.e., Dewitt Road).</li> <li>With the exception of local neighbourhood traffic, through vehicle and truck traffic would be required to use the Realigned Fruitland Road.</li> <li>Traffic operations at the intersection of existing Fruitland Road and Highway 8 would be considered acceptable.</li> <li>Intersection of Realigned Fruitland Road and Highway 8 would be similar to existing conditions.</li> <li>Residents located on Sandy Drive would be required to travel through Sherwood Park Road for access. The volumes are relatively low and would not affect the traffic operations at the Fruitland Road and Sherwood Park Road intersection.</li> <li>Connectivity to the QEW would remain the same.</li> </ul>	<ul style="list-style-type: none"> <li>Permanent closure (cul-de-sac) at Fruitland Road and Barton Street would re-distribute the traffic to adjacent north-south roads to the west of the study area and potentially impact traffic operations on those roads (i.e., Dewitt Road).</li> <li>All through vehicle and truck traffic would be required to use the Realigned Fruitland Road.</li> <li>Existing Fruitland Road south of Sherwood Park Road would have a significant improvement to traffic operations because the road would be used to access properties only.</li> <li>Traffic operations at the intersection of existing Fruitland Road and Highway 8 would improve because of the closed access.</li> <li>Intersection of Realigned Fruitland Road and Highway 8 would be similar to existing conditions.</li> <li>Residents located on Sandy Drive would be required to travel through Sherwood Park Road for access. The volumes are relatively low and would not affect the traffic operations at the Fruitland Road and Sherwood Park Road intersection.</li> <li>Connectivity to the QEW would remain the same.</li> </ul>	<ul style="list-style-type: none"> <li>Permanent closure (cul-de-sac) at Fruitland Road and Barton Street would re-distribute the traffic to adjacent north-south roads to the west of the study area and potentially impact traffic operations on those roads (i.e., Dewitt Road).</li> <li>Existing Fruitland Road would serve local neighbourhood traffic and would therefore result in a noticeable reduction in southbound through vehicle and truck traffic because the vehicles and trucks would be required to use the new North-South Road.</li> <li>Traffic operations at the intersections of existing Fruitland Road and Highway 8 would be considered acceptable.</li> <li>New intersections at Barton Street and Highway 8 would be similar to existing conditions and considered acceptable.</li> <li>Traffic operations at the intersection of existing Fruitland Road and Sherwood Park Road would experience higher volumes due to the additional traffic from Sandy Drive, however still considered acceptable.</li> <li>Connectivity to the QEW would be compromised because of the closed access on existing Fruitland Road south of Barton Street, which would introduce additional turning movements at the new North-South Road and Barton Street intersection.</li> </ul>	<ul style="list-style-type: none"> <li>Directional closures south of Barton Street and south of Sherwood Park Road would re-distribute the traffic to adjacent north-south roads to the west of the study area and potentially impact traffic operations on those roads (i.e., Dewitt Road).</li> <li>Existing Fruitland Road would serve local neighbourhood traffic and would therefore result in a significant reduction in through vehicle and truck traffic.</li> <li>Traffic operations at the intersections of existing Fruitland Road, Sherwood Park Road and Highway 8 would be considered acceptable.</li> <li>New intersections at Barton Street and Highway 8 would be similar to existing conditions and considered acceptable.</li> <li>Connectivity to the QEW would be compromised because of the northbound access restriction on existing Fruitland Road south of Barton Street as well as the southbound restriction south of Sherwood Park Road, which would introduce additional turning movements at the new North-South Road and Barton Street intersection.</li> </ul>	<ul style="list-style-type: none"> <li>Directional closures south of Barton Street would re-distribute the traffic to adjacent north-south roads to the west of the study area and potentially impact traffic operations on those roads (i.e., Dewitt Road).</li> <li>Traffic operations at the intersections of Fruitland Road, Sherwood Park Road and Highway 8 are considered acceptable.</li> <li>New intersections at Barton Street and Highway 8 would be similar to existing conditions and considered acceptable.</li> <li>Connectivity to the QEW would be compromised because of the northbound access restriction on existing Fruitland Road south of Barton Street, which would introduce additional turning movements at the new North-South Road and Barton Street intersection.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 1 except that there would be more dispersion of through vehicle and truck traffic in the overall road network.</li> <li>Connectivity to the QEW would remain the same until the new North-South Road becomes the designated truck route.</li> </ul>			
	Overall Traffic Safety and Improved Pedestrian/Cyclist Safety (e.g., sidewalks, bike lanes)	<ul style="list-style-type: none"> <li>No change to the overall traffic safety of the road since the potential for conflicts along existing Fruitland Road would remain the same. There would be no decrease in through vehicle and truck traffic volumes.</li> <li>Cycling Master Plan proposes a bike lane to be added on existing Fruitland Road, which would make it safer for cyclists.</li> <li>Pedestrian access would remain the same.</li> <li>Gateway feature may assist in reducing speeds.</li> </ul>	<ul style="list-style-type: none"> <li>Traffic safety at the intersection of Sandy Drive and existing Fruitland Road would slightly improve because the potential area of conflict at this location would be eliminated.</li> <li>Decreased through vehicle and truck traffic would reduce the potential for conflicts along existing Fruitland Road.</li> <li>Cycling Master Plan proposes a bike lane to be added on existing Fruitland Road, which would make it safer for cyclists.</li> <li>Pedestrian access at the intersection of existing Fruitland Road and Sandy Drive would be maintained.</li> <li>Diversion of traffic away from Fruitland Road may impact safety on other roads.</li> </ul>	<ul style="list-style-type: none"> <li>Overall traffic safety of the road would significantly improve because the potential area of conflicts at the intersection of Sandy Drive and Highway 8 are eliminated.</li> <li>No through vehicle and truck traffic on existing Fruitland Road would significantly reduce the potential for conflict points along existing Fruitland Road.</li> <li>Cycling Master Plan proposes a bike lane to be added on existing Fruitland Road, which would make it safer for cyclists.</li> <li>Pedestrian access at the intersection of existing Fruitland Road and Highway 8 and Sandy Drive would be maintained.</li> <li>Diversion of traffic away from Fruitland Road may impact safety on other roads.</li> </ul>	<ul style="list-style-type: none"> <li>Closure at Fruitland Road south of Barton Street would result in additional conflict points for through vehicle and truck traffic because of the added turning movements to travel northbound to access Barton Street or the QEW.</li> <li>Potential for conflicts along existing Fruitland Road for the local neighbourhood traffic would reduce because the through vehicle and truck traffic volumes would be lower.</li> <li>Cycling Master Plan proposes a bike lane to be added on existing Fruitland Road, which would make it safer for cyclists.</li> <li>Pedestrian access would remain the same.</li> <li>Diversion of traffic away from Fruitland Road may impact safety on other roads.</li> </ul>	<ul style="list-style-type: none"> <li>Southbound and northbound access restrictions located on existing Fruitland Road south of Barton Street and Sherwood Park Road would result in additional conflict points because of the added turning movements to travel northbound to access Barton Street or the QEW and southbound to access Highway 8.</li> <li>Potential for conflicts along existing Fruitland Road for the local neighbourhood traffic would significantly decrease because the through vehicle and truck traffic volumes would be further reduced.</li> <li>Cycling Master Plan proposes a bike lane to be added on existing Fruitland Road, which would make it safer for cyclists.</li> <li>Pedestrian access would remain the same.</li> <li>Diversion of traffic away from Fruitland Road may impact safety on other roads.</li> </ul>	<ul style="list-style-type: none"> <li>Barrier access restrictions at Fruitland Road south of Barton Street would result in additional conflict points because of the added turning movements to travel northbound to access Barton Street or the QEW.</li> <li>Potential for conflicts along existing Fruitland Road for the local neighbourhood traffic would be reduced because the through vehicle and truck traffic volumes would be lower.</li> <li>Cycling Master Plan proposes a bike lane to be added on existing Fruitland Road, which would make it safer for cyclists.</li> <li>Pedestrian access would remain the same.</li> <li>Diversion of traffic away from Fruitland Road may impact safety on other roads.</li> </ul>	<ul style="list-style-type: none"> <li>Overall traffic safety of the road would slightly improve with the installation of the visual features (e.g., gateway signage, enhanced pedestrian crosswalk) which would allow traffic travelling through the area to become more aware that this section of Fruitland Road is residential and to be cognizant of the surroundings. Therefore, the potential for conflicts along existing Fruitland Road would remain the same and/or improve since the enhanced visual effects would entice the through vehicle and truck traffic to reduce speeds and be more cautious.</li> <li>Cycling Master Plan proposes a bike lane to be added on existing Fruitland Road, which would make it safer for cyclists.</li> <li>Pedestrian access would remain the same.</li> <li>Gateway feature may assist in reducing speeds.</li> </ul>			
	Truck Traffic	<ul style="list-style-type: none"> <li>Trucks would continue to use existing Fruitland Road as it remains a designated truck route.</li> </ul>	<ul style="list-style-type: none"> <li>Trucks would be required to take the Realigned Fruitland Road because that would become the new designated truck route and therefore would eliminate the through truck traffic using existing Fruitland Road.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A.</li> </ul>	<ul style="list-style-type: none"> <li>Trucks would be required to take the new North-South Road as it would become the new designated truck route and therefore would eliminate the through truck traffic using existing Fruitland Road.</li> <li>Turning lanes at the new Barton Street and Highway 8 intersections (take form of a roundabout or a traffic signal controlled intersection) would be required to</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>		

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Transportation / Engineering	Vehicle Speed	<ul style="list-style-type: none"> <li>No change to the existing speeding behaviour on existing Fruitland Road.</li> </ul>	<ul style="list-style-type: none"> <li>Speeding would decrease slightly on existing Fruitland Road because there is the access restriction south of Sandy Drive.</li> <li>Speeding could potentially increase along the Realigned Fruitland Road but would depend on the development planned for this corridor (i.e., fewer fronting properties and driveways). However, the speeding behaviour could be mitigated through careful consideration to the design of the road and adjoining land uses.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A except that speeding would decrease significantly because of the northbound and southbound access restrictions (cul-de-sac) at both ends of existing Fruitland Road and the road would serve local neighbourhood traffic.</li> </ul>	<ul style="list-style-type: none"> <li>Speeding would decrease on existing Fruitland Road because the access restriction south of Barton Street.</li> <li>Speeding could potentially increase along the new North-South Road but would depend on the development planned for this corridor (i.e., fewer fronting properties and driveways). However, the speeding behaviour could be mitigated through careful consideration to the design of the road and adjoining land uses.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A except there are the northbound and southbound access restrictions (partial closures) south of Barton Street and Sherwood Park Road. The road would serve local neighbourhood traffic.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A with some access restrictions.</li> </ul>	<ul style="list-style-type: none"> <li>No access restrictions on existing Fruitland Road however the visual features could help to reduce speeds through the residential area.</li> <li>Speeding could potentially increase along the new North-South Road but would depend on the development planned for this corridor (i.e., fewer fronting properties and driveways). However, the speeding behaviour could be mitigated through careful consideration to the design of the road and adjoining land uses.</li> </ul>					
	Accessibility (local access) and Turning Movements	<ul style="list-style-type: none"> <li>Traffic volumes are expected to increase over time, which could further affect accessibility into adjacent properties and driveways.</li> </ul>	<ul style="list-style-type: none"> <li>Access to adjacent properties would be improved by the reduction of through vehicle and truck traffic on existing Fruitland Road.</li> <li>Properties on Sandy Drive and the properties on Fruitland Road immediately south of Sandy Drive would be impacted by the closed access.</li> <li>Local neighbourhood traffic on existing Fruitland Road and Sandy Drive would have to travel a circuitous route going northbound to access Barton Street or the QEW by travelling east along Sherwood Park Road (i.e., new East-West Collector Road) to the Realigned Fruitland Road.</li> <li>Traffic from the Barton Street area destined to the neighbourhood, Saltfleet Arena and Sherwood Park would be required to take the Realigned Fruitland Road and travel west along Sherwood Park Road, which would introduce additional travel distance and time.</li> </ul>	<ul style="list-style-type: none"> <li>Access to adjacent properties would be significantly improved since there would be no through vehicle and truck traffic on existing Fruitland Road.</li> <li>Properties on Sandy Drive and the properties on Fruitland Road immediately south of Sandy Drive would be impacted by the closed access.</li> <li>Local neighbourhood traffic on existing Fruitland Road and Sandy Drive would have to travel a circuitous route going northbound to access Barton Street or the QEW as well as southbound destined to the neighbourhood, Saltfleet Arena and Sherwood Park or to Highway 8. The local traffic would be required to travel east along Sherwood Park Road (i.e., new East-West Collector Road) to the Realigned Fruitland Road, which would introduce additional travel distance and time.</li> </ul>	<ul style="list-style-type: none"> <li>Access to adjacent properties would be improved by the reduction of through vehicle and truck traffic on existing Fruitland Road.</li> <li>Local neighbourhood traffic travelling northbound on existing Fruitland Road to access Barton Street or the QEW would be required to travel east on Sherwood Park Road (i.e., new East-West Collector Road) to the new North-South Road and would have to travel a circuitous route.</li> <li>Traffic from the Barton Street area destined to the neighbourhood, Saltfleet Arena and Sherwood Park would be required to take the new North-South Road and travel west along Sherwood Park Road, which would introduce additional travel distance and time.</li> </ul>	<ul style="list-style-type: none"> <li>Access to adjacent properties would be improved by the reduction of through vehicle and truck traffic on existing Fruitland Road.</li> <li>Local neighbourhood traffic traveling northbound on existing Fruitland Road to access Barton Street or the QEW or southbound to access Highway 8 would be required to travel east along Sherwood Park Road (i.e., new East-West Collector Road) to the new North-South Road and would have to travel a circuitous route.</li> <li>Southbound and northbound traffic can utilize existing Fruitland Road destined to the neighbourhood, Saltfleet Arena and Sherwood Park but would be required to take the new North-South Road and travel east along Sherwood Park Road to exit the community facilities, which would introduce additional travel distance and time.</li> </ul>	<ul style="list-style-type: none"> <li>Access to adjacent properties would be improved by the reduction of through vehicle and truck traffic on existing Fruitland Road.</li> <li>Local neighbourhood traffic travelling northbound on existing Fruitland Road to access Barton Street or the QEW would be required to travel east along Sherwood Park Road east (i.e., new East-West Collector Road) to the new North-South Road and would have to travel a circuitous route.</li> <li>Southbound and northbound traffic can utilize existing Fruitland Road destined to the neighbourhood, Saltfleet Arena and Sherwood Park but only northbound traffic would be required to take the new North-South Road and travel east along Sherwood Park Road to exit the community facilities, which would introduce additional travel distance and time.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 1 except that the visual effects would help to reduce speeds and potentially influence the through vehicle and truck traffic to use the new North-South Road which would improve accessibility to adjacent properties on existing Fruitland Road.</li> </ul>					
	Fire and Emergency Service / Waste Management/ Snow Removal/ School Bus Services	<ul style="list-style-type: none"> <li>Travel time for fire and emergency services, waste management, snow removal, and school bus services would remain the same as existing conditions.</li> </ul>	<ul style="list-style-type: none"> <li>Minor increase (approximately 1 to 2 minutes) in travel time for fire and emergency services because of the cul-de-sac south of Barton Street.</li> <li>Waste management services and snow-ploughs would require a full cul-de-sac (minimum radius of 18 metres) to maintain services.</li> <li>Existing school bus stop would require relocation.</li> </ul>	<ul style="list-style-type: none"> <li>Moderate increase (approximately 1 to 2 minutes) in fire and emergency services because of the cul-de-sac south of Barton Street and Highway 8.</li> <li>Waste management services and snow-ploughs would require a full cul-de-sac (minimum radius of 18 metres) to maintain services.</li> <li>Existing school bus stop would require relocation.</li> </ul>	<ul style="list-style-type: none"> <li>Minor increase (approximately 1 to 2 minutes) in travel time for fire and emergency services because of the cul-de-sac south of Barton Street.</li> <li>Waste management services and snow-ploughs would require a full cul-de-sac (minimum radius of 18 metres) to maintain services.</li> <li>Existing school bus stop would require relocation.</li> </ul>	<ul style="list-style-type: none"> <li>Minor increase (approximately 1 to 2 minutes) in travel time for fire and emergency services because of the partial northbound access restriction south of Barton Street.</li> <li>Waste management and snow removal services would be required to modify existing routes to accommodate the partial closures.</li> <li>Existing school bus stop would require relocation.</li> </ul>	<ul style="list-style-type: none"> <li>Minor increase (approximately 1 minute) in travel time for fire and emergency services because of the partial northbound access restriction south of Barton Street.</li> <li>Waste management and snow removal services would be required to modify existing routes to accommodate the partial closures.</li> <li>Existing school bus stop would require relocation.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 1.</li> </ul>					
	Future Traffic Network (i.e., connection to future road networks)	<ul style="list-style-type: none"> <li>Existing Fruitland Road would provide a connection to the proposed future road network (i.e., new East-West Collector Road) identified in the preliminary ongoing Fruitland-Winona Secondary Plan.</li> </ul>	<ul style="list-style-type: none"> <li>Proposed Realigned Fruitland Road can provide opportunities for future network connections.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A.</li> </ul>	<ul style="list-style-type: none"> <li>Proposed new North-South Road can provide opportunities for future network connections.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 1 and 3A.</li> </ul>					
	Future Land Use Patterns (i.e., compatibility with future land uses and opportunity to facilitate development)	<ul style="list-style-type: none"> <li>Existing Fruitland Road would provide opportunities to facilitate future development however the curvature of the road north of Sherwood Park Road connecting to Barton Street would have some limitations on the type of land uses and development possibilities.</li> </ul>	<ul style="list-style-type: none"> <li>Provides opportunities to facilitate future development however the curvature of the road north of Sherwood Park Road connecting to Barton Street would have some limitations on the type of land uses and development possibilities.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A.</li> </ul>	<ul style="list-style-type: none"> <li>Provides opportunities to facilitate development without major constraints or limitations with the current proposed land uses shown in the preliminary ongoing Fruitland-Winona Secondary Plan.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 1 and 3A.</li> </ul>					
	Timing of Improvements	<ul style="list-style-type: none"> <li>Visual features (e.g., gateway signage, enhanced pedestrian crosswalk) could be implemented within the 2 – 5 year timeframe.</li> </ul>	<ul style="list-style-type: none"> <li>Realigned Fruitland Road would be implemented once future development is approved anticipated within the 5 – 15 year timeframe.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A.</li> </ul>	<ul style="list-style-type: none"> <li>New North-South Road would be implemented once future development is approved anticipated within the 5 – 15 year timeframe.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A except that the visual features (e.g., gateway signage, enhanced pedestrian crosswalk) could be implemented within the 2 – 5 year timeframe.</li> </ul>					

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				<ul style="list-style-type: none"> <li>The City does not have control over timing of construction.</li> </ul>				<ul style="list-style-type: none"> <li>The City does not have control over timing of construction.</li> </ul>					
Social Environment	Property Requirements (e.g., impact to residences, businesses, agricultural lands)	<ul style="list-style-type: none"> <li>No property requirements therefore no direct impacts to residential, commercial or agricultural properties.</li> </ul>	<ul style="list-style-type: none"> <li>Realigned Fruitland Road would be built on lands dedicated by the land owner, developer or purchased by the City through the Secondary Plan process.</li> <li>Proposed road north of proposed East-West Collector would be redundant to the north south road already proposed by the Fruitland-Winona Secondary Plan.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A.</li> <li>Additional property from the Wesley Church Parking Lot would be required to accommodate the cul-de-sac at Highway 8.</li> <li>Proposed road north of proposed East-West Collector would be redundant to the north south road already proposed by the Fruitland-Winona Secondary Plan.</li> </ul>	<ul style="list-style-type: none"> <li>New North-South Road would be built on lands dedicated by the land owner or developer.</li> <li>Direct impacts to three (3) residential properties located on Barton Street south of Sunnyhurst Avenue.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A except that there would be additional impacts to two (2) residential properties and one (1) commercial/business property on Highway 8.</li> </ul>	<ul style="list-style-type: none"> <li>No direct impacts from gateway features to residential, commercial or agricultural properties since all of the visual feature enhancements would be contained within the existing City's road right-of-way.</li> <li>Same as Alternative 3A.</li> </ul>					
	Impact to Business Operations	<ul style="list-style-type: none"> <li>No permanent impacts to business operations because all accesses on existing Fruitland Road would be maintained.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 1.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 1.</li> </ul>	<ul style="list-style-type: none"> <li>No through and local traffic would be permitted because of the access restrictions and therefore diverted away from the commercial properties located on Fruitland Road at Barton Street resulting in the potential loss of business.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>There is the opportunity for southbound through and local traffic.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 1 in the short term (2 – 5 years), however in the long term (5 – 15 years), the through and local traffic would be diverted away from the commercial properties located on Fruitland Road at Barton Street and therefore the potential loss of business.</li> </ul>					
	Noise and Air Quality	<ul style="list-style-type: none"> <li>Marginal increase in noise level.</li> <li>Over time traffic congestion will increase resulting in the idling of vehicles which can contribute to reduced air quality.</li> </ul>	<ul style="list-style-type: none"> <li>Partially removes traffic and noise/air quality impacts away from Fruitland Road.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A.</li> </ul>	<ul style="list-style-type: none"> <li>Completely removes traffic and noise/air quality impacts away from Fruitland Road.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>					
Natural Environment	Impact to Vegetation	<ul style="list-style-type: none"> <li>No impacts to vegetation.</li> </ul>	<ul style="list-style-type: none"> <li>Realigned Fruitland Road would encroach and remove some vegetation.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A.</li> </ul>	<ul style="list-style-type: none"> <li>New North-South Road would encroach and remove some vegetation.</li> <li>Potential habitat fragmentation of a mature forest community (fresh moist-oak hardwood deciduous forest). Although not considered significant, the forest would potentially be affected by future site plan development.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>					
	Impact to Aquatic Features	<ul style="list-style-type: none"> <li>No impacts on Watercourse 5.</li> </ul>	<ul style="list-style-type: none"> <li>Direct impact on Watercourse 5.</li> <li>Would mostly likely require a box culvert similar to the existing culvert located at Barton Street north of Fruitland Road.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A.</li> </ul>	<ul style="list-style-type: none"> <li>No direct impact to watercourses.</li> </ul>	<ul style="list-style-type: none"> <li>No direct impact to watercourses.</li> </ul>	<ul style="list-style-type: none"> <li>No direct impact to watercourses.</li> </ul>	<ul style="list-style-type: none"> <li>No direct impact to watercourses.</li> </ul>					
	Impact to Wildlife	<ul style="list-style-type: none"> <li>No impacts to wildlife.</li> </ul>	<ul style="list-style-type: none"> <li>Potential impacts to wildlife, however these species are susceptible to urban land uses.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A.</li> </ul>					
Cultural Environment	Impact to Archaeological Resources	<ul style="list-style-type: none"> <li>No potential impact since there are no known archaeological resources within the City's road right-of-way.</li> </ul>	<ul style="list-style-type: none"> <li>Potential to discover archaeological artefacts and resources within the realigned segment of Fruitland Road. Complete a Stage 2 archaeological assessment.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 2A.</li> </ul>	<ul style="list-style-type: none"> <li>Potential to discover archaeological artefacts and resources within the new North-South Road corridor. Complete a Stage 2 archaeological assessment.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 3A.</li> </ul>					
	Impact to Built Heritage and Cultural Landscape	<ul style="list-style-type: none"> <li>No impacts to built heritage and cultural landscapes because they are located outside of the study area limits.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 1.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 1.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 1.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 1.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 1.</li> </ul>	<ul style="list-style-type: none"> <li>Same as Alternative 1.</li> </ul>					

CRITERIA	MEASURE	ALTERNATIVE SOLUTIONS													
		ALTERNATIVE 1: Do Nothing Includes Gateway Feature/Pedestrian Crosswalk enhancements at Fruitland Road, Barton Street and Highway 8 intersections	ALTERNATIVE 2: Realign Fruitland Road ALTERNATIVE 2A Realign Fruitland Road 360m east with closed access at Sandy Drive with an intersection at Sherwood Park Road and Realigned Fruitland Road and maintain local access on existing Fruitland Road	ALTERNATIVE 2B Realign Fruitland Road 360m east with closed access at Sandy Drive with an intersection at Sherwood Park Road and Realigned Fruitland Road and cul-de-sac existing Fruitland Road at Highway 8	ALTERNATIVE 3: New North-South Road <sup>1</sup> ALTERNATIVE 3A New North-South Road south of Sunnyhurst Avenue with new Barton Street and Highway 8 intersections and cul-de-sac existing Fruitland Road south of Barton Street	ALTERNATIVE 3B New North-South Road south of Sunnyhurst Avenue with new Barton Street and Highway 8 intersections and partially closed access on Fruitland Road south of Barton Street and Sherwood Park Road (northbound and southbound access restrictions)	ALTERNATIVE 3C New North-South Road south of Sunnyhurst Avenue with new Barton Street and Highway 8 intersections and partially closed access on Fruitland Road south of Barton Street (northbound access restrictions only)	ALTERNATIVE 3D New North-South Road south of Sunnyhurst Avenue with new Barton Street and Highway 8 intersections and Maintain Existing Fruitland Road (no access restrictions) that includes Gateway Feature/Pedestrian Crosswalk enhancements at Fruitland Road, Barton Street and Highway 8 intersections							
Cost	Overall Construction and Maintenance Costs	<ul style="list-style-type: none"> <li>\$162,000 for Gateway Features.</li> <li>Low maintenance cost.</li> </ul>	<ul style="list-style-type: none"> <li>Moderate cost (\$5.73 Million).<sup>2</sup></li> <li>Moderate maintenance costs.</li> </ul>	<ul style="list-style-type: none"> <li>High cost (\$7.1 Million).<sup>2</sup></li> <li>Value may increase subject to land appraisal report being completed for Church property.</li> <li>Moderate maintenance costs.</li> </ul>	<ul style="list-style-type: none"> <li>Moderate to High cost (\$7.56 Million).<sup>2</sup></li> <li>Moderate maintenance costs.</li> <li>NOTE: Additional property purchases of approximately \$3 Million will be required for eastern option (where new road meets Highway 8).</li> </ul>	<ul style="list-style-type: none"> <li>Moderate to High cost (\$7.66 Million).<sup>2</sup></li> <li>Moderate maintenance costs.</li> <li>NOTE: Additional property purchases of approximately \$3 Million will be required for eastern option (where new road meets Highway No.8).</li> </ul>	<ul style="list-style-type: none"> <li>Moderate to High cost (\$7.55 Million).<sup>2</sup></li> <li>Moderate maintenance costs.</li> <li>NOTE: Additional property purchases of approximately \$3 Million will be required for eastern option (where new road meets Highway 8).</li> </ul>	<ul style="list-style-type: none"> <li>Moderate to high cost (\$7.72 Million).<sup>2</sup></li> <li>\$162,000 for Gateway Features.</li> <li>Moderate maintenance costs.</li> <li>NOTE: Additional property purchases of approximately \$3 Million will be required for eastern option (where new road meets Highway No.8).</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 100% of the overall construction and maintenance costs (\$162,000).</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 83% of the overall construction and maintenance costs (\$4.76 Million).</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 96% of the overall construction and maintenance costs (\$6.7 Million).</li> <li>Value may increase subject to land appraisal report being completed for Church property.</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 25% of the overall construction and maintenance costs (\$1.89 Million).</li> <li>If eastern option is chosen City costs will be proportionally higher.</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 25% of the overall construction and maintenance costs (\$1.91 Million).</li> <li>If eastern option is chosen City costs will be proportionally higher.</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 25% of the overall construction and maintenance costs (\$2.64 Million).</li> <li>If eastern option is chosen City costs will be proportionally higher.</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 25% of the overall construction and maintenance costs (\$1.93 Million).</li> <li>If eastern option is chosen City costs will be proportionally higher.</li> </ul>
	Costs to the City of Hamilton	<ul style="list-style-type: none"> <li>Approximately 100% of the overall construction and maintenance costs (\$162,000).</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 83% of the overall construction and maintenance costs (\$4.76 Million).</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 96% of the overall construction and maintenance costs (\$6.7 Million).</li> <li>Value may increase subject to land appraisal report being completed for Church property.</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 25% of the overall construction and maintenance costs (\$1.89 Million).</li> <li>If eastern option is chosen City costs will be proportionally higher.</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 25% of the overall construction and maintenance costs (\$1.91 Million).</li> <li>If eastern option is chosen City costs will be proportionally higher.</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 25% of the overall construction and maintenance costs (\$2.64 Million).</li> <li>If eastern option is chosen City costs will be proportionally higher.</li> </ul>	<ul style="list-style-type: none"> <li>Approximately 25% of the overall construction and maintenance costs (\$1.93 Million).</li> <li>If eastern option is chosen City costs will be proportionally higher.</li> </ul>							
RANKING OF ALTERNATIVES		1 <sup>st</sup>	3 <sup>RD</sup>	4 <sup>th</sup>	2 <sup>nd</sup>	2 <sup>nd</sup>	2 <sup>nd</sup>	1 <sup>st</sup> <b>RECOMMENDED</b>							



**NOTES**

- Fruitland Road is classified as an arterial roadway under the current Stoney Creek Official Plan, and a minor arterial under the Council approved City of Hamilton's Urban Official Plan (2009) which is under review by the Ontario Municipal Board. Future road classification and designation of Fruitland Road is to be determined in the future.
- Indicates funding sources from tax levy, development charges, etc.

#### 4.7 Preferred Planning Solution

Based on the preliminary evaluation of the alternative solutions it was concluded that Alternative 3D (Proposed new North-South road with Fruitland Road gateway features and pedestrian crosswalks enhancements) is the preferred alternative based on the following rationale:

- Addresses the problem and opportunity statement;
- Can be implemented in conjunction with Fruitland-Winona Secondary Plan;
- Low impact on traffic operations as well as fire/emergency and municipal services;
- Truck Route is relocated to the new North-South road in conjunction with the proposed Fruitland-Winona Secondary Plan development; and
- Implementation of Gateway Features/Enhanced Pedestrian Crosswalk (e.g., coloured banding) is not dependent on timing of Stoney Creek Secondary Plan and can be constructed sooner, subject to future budget deliberations, thus providing some benefits to Fruitland Road residents at relatively low cost.

Regarding the implementation of Alternative 3D it is noted that additional property purchases of approximately \$3 million could be required if the easterly option of this alternative is chosen (to acquire property where the proposed new road intersects with Highway 8).



## 5. Phase 2: Consultation Activities

Throughout the planning process a variety of communications and consultation methods were undertaken with numerous stakeholders, including external government review agencies, property owners and other interested members of the public. Several steps were undertaken to proactively inform the affected stakeholders about this Municipal Class EA study, obtain their input and address their comments or concerns as much as possible as they arose. The following sub-sections describe the consultation activities undertaken in Phase 2 of the Municipal Class EA study.

### 5.1.1 Notification

#### Newspaper Advertisement

The Notice of Study Commencement and Public Information Centre (PIC) # 1 and 2 was published in the Stoney Creek News on April 22 and 29, 2010 as well as the Hamilton Spectator on April 23 and 30, 2010. All notices were also available on the city's website at [www.myhamilton.ca/fruitlandEA](http://www.myhamilton.ca/fruitlandEA).

#### Drop Mail Distribution

The PIC# 1 and # 2 notices were provided to the local residents and businesses that were located within the study area. The boundary limits for the drop mail included all properties south of Barton Street to the Escarpment, west to Dewitt Road and east to Jones Road. The drop mail distribution took place on Thursday April 15, 2010.

### 5.1.2 Agency Consultation

Relevant government review agencies and stakeholders (e.g., MOE, HRCA, Ministry of Municipal Affairs and Housing, Ministry of Culture) who would be potentially interested in the study were also notified of the study commencement and PIC # 1 and # 2. The Ministry of Culture responded to our study commencement letter on June 22, 2010 and informed AECOM that a heritage impact assessment maybe required prior to construction. To date no other agencies have provided responses. **Appendix F** includes the contact list and all agency and stakeholder correspondence.

### 5.1.3 Fruitland – Winona Community Advisory Committee

Through the EA planning process the City met with the Fruitland–Winona Community Advisory Committee (CAC) on two occasions. The first was on January 22, 2009 to introduce the Fruitland Road Municipal Class EA Study as part of the Fruitland-Winona Secondary Plan meeting hosted by the Planning and Economic Development Department staff.

The purpose of meeting was to:

- Introduce the Fruitland Road EA Project Team and meet the CAC members;
- Acquire background information from a wide variety of potentially affected members of the public and other stakeholders;

- Explain how this Municipal Class EA fits with the Secondary Plan process and how Fruitland-Winona CAC will participate in the Fruitland Road Municipal Class EA study;
- Review Municipal Class EA goals and objectives etc.;
- Review the study area issues to date;
- Break out into groups to gather input and ask questions; and
- Present the next steps.

The City met exclusively with the Fruitland-Winona CAC for a second time on May 11, 2010. A brief presentation summarizing work completed to date and an overview of the alternative solutions was given. The main component of the meeting was to break the attendees into working groups to receive feedback on the following:

- Purpose of the Study;
- Problem and Opportunity Statement;
- Proposed Evaluation Criteria; and
- Proposed Alternative Solutions.

There was no consensus among the Committee as to which alternative would be preferred. Comments were provided which resulted in modifications to the evaluation criteria; however, no changes to the alternative solutions themselves were made.

#### 5.1.4 Public Consultation

##### 5.1.4.1 Public Information Centre #1

The first PIC was held on Tuesday May 4, 2010 from 6:00 pm to 8:00 pm at the Stoney Creek Municipal Service Centre – Lobby located at 777 Highway 8 in Stoney Creek.

Representatives from the City of Hamilton and AECOM staff were present at the PIC to provide information and answer questions.

##### Presentation Material

The information presented at PIC # 1 included:

- Welcome
- Study area limits
- Background information
- Purpose of the study
- Natural heritage environmental features and constraints
- Social and cultural features
- Permissible traffic for local truck delivery
- Existing and future traffic conditions
- Problem and opportunity statement
- Overview of the Class Environmental Assessment Process
- Meeting with the Fruitland-Winona Community Advisory Committee (CAC)

- Issues/comments raised at the CAC meeting
- Work completed since January 2009
- Proposed evaluation criteria
- Proposed alternative solutions
- How to provide input
- Next steps

#### Attendance

One-hundred and one (101) people signed in at the PIC. The majority of the participants were residents and members of the Fruitland-Winona Community Advisory Committee (CAC), land developers and local business owners.

#### Comments and Responses

There were 13 comment sheets submitted at the PIC which can be found in Appendix E. From discussions with PIC attendees, the general consensus was split regarding the alternative planning solutions. From the one on one discussions and submitted comment sheets, most agreed with the problem statement and the fact that there are safety and quality of life issues with Fruitland Road, however; most disagreed with the planning solutions as presented with some noting that the problems on Fruitland Road would only be transferred to a new road.

In general, of those attendees who stated a position, most agreed with the realignment of Fruitland Road and maintaining local access on the existing Fruitland Road. They also agreed with the objective of realigning the road to help reduce vehicle speeds/aggressive driving of trucks and other vehicles that has caused difficulties for residences on Fruitland with entering and existing their driveways.

Some individuals suggested the use of traffic barriers at Barton Street which would restrict north bound movements, however following review this was not carried forward due to traffic operations and safety concerns. Lastly, some members of the public expressed concern regarding the time it would take to implement any of the alternative solutions (i.e., dependant on initiation by the development community). In response to this Alternative 3D was revised to include gateway features that could be implemented fairly quickly.

**Table 10** provides a summary of comments, questions, suggestions and issues expressed in the comment sheets along with responses. See **Appendix G** for all public consultation activities.

**Table 10 PIC #1 Issues and Response Table**

Issues and Comments		Responses
<b>Q1. Existing Conditions</b>		
Q1.1	Vehicles and trucks are speeding on Fruitland Road	<ul style="list-style-type: none"> <li>• Current posted speed limit on Fruitland Road is 50 km/hr.</li> <li>• Speed data was collected as part of the automated traffic counts in 2006 through 2009.</li> <li>• Analysis shows that drivers (both vehicles and trucks) operate with a speed range of 61 – 67 km/h on Fruitland Road between Barton Street and Highway 8.</li> <li>• This range is within the 85 percentile and this driving behaviour is not considered unusual for a City minor arterial road.</li> <li>• The City will consider alternative methods to address speeding behaviour on Fruitland Road.</li> </ul>
Q1.2	Difficult to enter and exit driveways (access restrictions and safety)	<ul style="list-style-type: none"> <li>• Alternative solutions were developed to address the concerns by providing alternate routes and links in conjunction with future land development.</li> <li>• Similar to other arterial roads in the City</li> </ul>
Q1.3	Address speeding on Dewitt Road and improve traffic operations (consider dedicated right turn lanes on Dewitt Road)	<ul style="list-style-type: none"> <li>• Installation of turning lanes on Dewitt Road is outside of scope for this Class EA.</li> <li>• A separate traffic analysis would be required to properly understand the traffic issues and develop possible solutions.</li> </ul>
Q1.4	Proposed Fruitland Road alternatives will divert traffic on Dewitt Road	<ul style="list-style-type: none"> <li>• There is the possibility for traffic diversion; however this is dependent on the destination and origin of the vehicles and trucks.</li> <li>• Traffic infiltration on other roads including Dewitt Road is considered in the alternatives evaluation for the selection of the preferred solution.</li> <li>• Changes to existing Fruitland Road could result in traffic impacts to adjacent roads.</li> </ul>
Q1.5	Any proposed cul-de-sac on Fruitland Road will impact	<ul style="list-style-type: none"> <li>• An Emergency Service Analysis (fire, ambulance and police response times) was completed to assess the potential impacts for alternative solutions having access</li> </ul>

Issues and Comments		Responses
	emergency services and response times	<p>restrictions (e.g., cul-de-sacs or one way traffic barriers).</p> <ul style="list-style-type: none"> <li>For the cul-de-sac alternatives there was a minor reduction in response times. This is considered in the evaluation of alternatives.</li> </ul>
Q1.6	City maintenance services (i.e., snow ploughing) will be compromised with alternatives that limit or restrict access	<ul style="list-style-type: none"> <li>Similar to emergency services, impacts on municipal services such as snow ploughing, garbage removal and bus services was considered in the development and evaluation of alternatives.</li> <li>According to municipal standards, the minimum turning radius required for these large vehicles is 18 metres which can be accommodated in the proposed cul-de-sac locations.</li> </ul>
Q1.7	Remove trucks from Fruitland Road and onto the by-pass	<ul style="list-style-type: none"> <li>According to the current Final Recommended Truck Route Network (as part of the City of Hamilton Truck Route Master Plan Study and May 31st, 2010 Subcommittee Meeting) Fruitland Road will remain as a full time truck route.</li> <li>The alternative solutions will facilitate the removal of through vehicle and truck traffic movements off Fruitland Road and onto the re-aligned Fruitland Road (Alternative 2A and 2B) or the new North-South Road (Alternative 3A, 3B, 3C, and 3D) as identified through the Fruitland-Winona Secondary Planning process.</li> <li>However the diversion of through vehicle and truck traffic cannot be implemented until future development occurs (timeframe is expected to be beyond 5 to 15 years) and new roads are fully constructed. The recommendation of this Class EA will be forwarded to the Truck Route Subcommittee who would consider changes to the by-law.</li> <li>Once the new bypass (realignment) or North South Road is in place then a by-law would be prepared to recognize the new truck route.</li> </ul>
Q1.8	Noise and vibration impacts	<ul style="list-style-type: none"> <li>The noise and vibration impacts experienced on Fruitland Road caused by the trucks and other vehicles are considered comparable to other arterial roads designated as full time truck routes where there are fronting residential properties.</li> <li>The alternatives identified will reduce the nuisance due to the realignment or new North-South Road away from Fruitland Road to varying degree.</li> </ul>

Issues and Comments		Responses
Q1.9	Air quality and pollution	<ul style="list-style-type: none"> <li>• A continuous increase in traffic volumes on Fruitland Road will increase the air particulate matter and emissions released from the vehicles and trucks.</li> <li>• The alternatives identified will improve air quality to Fruitland Road properties to varying degrees (i.e., move traffic away from Fruitland Road), however, the total vehicle emission in the area will remain as is or increase based on higher traffic volumes over the long term, due to Stoney Creek Urban Boundaries Expansion.</li> <li>• Noise and air quality have been considered in the evaluation of alternative solutions.</li> </ul>
Q1.10	Heavy truck and vehicle volumes	<ul style="list-style-type: none"> <li>• Recognizing that Fruitland Road is an arterial road and a direct connection to Highway 8 and to the QEW, the existing traffic volumes along this road are considered to be within the range of other arterial roads in the City.</li> <li>• The traffic study analyzed the current (2009 AM and PM) and the future (2014 and 2019 AM and PM) operational conditions at the intersections.</li> <li>• It was concluded that the intersections are currently operating well and are expected to continue to operate well in the future with acceptable traffic flow.</li> <li>• It is recognized that traffic volumes significantly increase when the Sherwood Park soccer fields are in heavy use. Solutions to parking/traffic peaks are being considered by Councillor Pearson's office.</li> </ul>
Q1.11	Maintain full access on Fruitland Road (i.e., QEW connection)	<ul style="list-style-type: none"> <li>• Alternative 3D was developed based on no access restrictions on Fruitland Road.</li> </ul>
Q1.12	Should consider human health and safety concerns for children (e.g., biking, playing)	<ul style="list-style-type: none"> <li>• Measuring the impacts to human health are outside of the scope of this Class EA Study, however please refer to Q1.8 and Q1.9.</li> <li>• Road and pedestrian safety is an important part of the alternatives evaluation. Bike Lanes have been proposed for the existing Fruitland Road in the City Wide Cycling Master Plan (2010). Alternative 1 would not preclude this from being implemented. The "3 A, B, C and D "alternatives include pedestrian and cyclist considerations as well. As part of this series of alternatives existing Fruitland Road cycling status in</li> </ul>

Issues and Comments		Responses
		<p>the Cycling Master Plan would not change. The new North-South minor arterial, if chosen as part of this process, would include a Multi-Use Path to carry pedestrian cyclist traffic in both directions on the East side of the new road. The west side of the road would have a sidewalk for pedestrians. This physical delineation of cycling space will offer a safer path for on-road cyclists than they have in the present.</p>
Q1.13	Structure of Fruitland Road is not able to withstand trucks	<ul style="list-style-type: none"> <li>• Fruitland Road was constructed to meet the Municipal Arterial Standards which includes heavy truck traffic.</li> <li>• Current road conditions do not exhibit much deterioration of roadway surface.</li> <li>• Insufficient road structure would result in premature deterioration of the road which is not occurring at this time.</li> </ul>
<b>Q2. Problem Statement</b>		
Q2.1	Other problems include drainage including flooding of sidewalks and road surface structural damage that causes vibration and damages to private property.	<ul style="list-style-type: none"> <li>• Sidewalks are investigated on an annual basis to identify deficiencies. Deficiencies are then programmed through the annual capital budget process.</li> <li>• Destination for any enquiries should be sent through to the following Road Operations and Maintenance email address: <a href="mailto:roadops@hamilton.ca">roadops@hamilton.ca</a></li> <li>• Impacts to private property are outside the scope of this Class EA Study. Requests for compensation considerations should be directed to the City's Risk Management department at 905-540-5742.</li> <li>• Refer to Q1.13</li> </ul>
Q2.2	Air quality and emissions are a major concern	<ul style="list-style-type: none"> <li>• Refer to Q1.9</li> </ul>
Q2.3	Lack of police enforcement on Fruitland Road, no measures to control speeding	<ul style="list-style-type: none"> <li>• Speeding is part of the problem statement.</li> <li>• Police enforcement on Fruitland Road is subject to police manpower and budget. The City will coordinate with the City's Police Department to identify future plans to improve enforcement on Fruitland Road.</li> </ul>
Q2.4	Pedestrian safety, safety of children, impacts to health and	<ul style="list-style-type: none"> <li>• Refer to Q1.12</li> </ul>

Issues and Comments		Responses
	safety	
Q2.5	Impacts to private property, property damage	<ul style="list-style-type: none"> <li>Refer to Q 2.1</li> </ul>
<b>Q3. Planning Alternative Solutions</b>		
Q3.1	Consider safety improvements to Sherwood Park Road and Fruitland Road intersection	<ul style="list-style-type: none"> <li>The intersection of Sherwood Park Road and Fruitland Road was analyzed for this Class EA Study.</li> <li>The results of the analysis indicated that there are no warrants for improvements (i.e., four way stop signs) at this time.</li> <li>However, the City will monitor this intersection as part of the Secondary Planning process and the proposed East-West link of Sherwood Park Road to Jones Road to determine whether a 4-way stop is required to address the anticipated traffic increase.</li> </ul>
Q3.2	New East-West Road connecting to Sherwood Park Road will create more traffic on Fruitland Road	<ul style="list-style-type: none"> <li>Refer to Q3.1</li> <li>Increase in area traffic can be expected as development occurs.</li> <li>The new East-West Road was identified and approved in the SCUBE Transportation Master Plan.</li> </ul>
Q3.3	Realignment options will have significant impacts to the existing creek	<ul style="list-style-type: none"> <li>An all season Natural Heritage Assessment based on the proposed alternative solutions was completed for this Class EA Study.</li> <li>The assessment concluded that the alternatives could potentially result in minor direct and indirect impacts to Watercourse 5 and a tributary to Watercourse 5 although the potential impacts can be mitigated.</li> </ul>
Q3.4	No closures or access restrictions on Fruitland Road	<ul style="list-style-type: none"> <li>Refer to Q1.11</li> </ul>
Q3.5	City should stick to the original plan and build the by-pass	<ul style="list-style-type: none"> <li>This Municipal Class EA considers all reasonable alternatives.</li> </ul>



Issues and Comments		Responses
Q3.6	For Alternative 2A or 2B cul-de-sac options, consider allowing south bound only Fruitland Road traffic to enter Sandy Drive.	<ul style="list-style-type: none"> <li>While this has merit from an access to neighbourhoods perspective; based on human-motorist behaviour some vehicles will still try and make prohibitive left turns from Sandy Drive onto Fruitland Road (i.e., traveling north bound) resulting in potential for collisions.</li> </ul>
<b>Q4. Evaluation Criteria</b>		
Q4.1	Social and human impact with respect to law suits, welfare of children and families, resident's petitions, concerns for the unsafe and unhealthy conditions on Fruitland Road	<ul style="list-style-type: none"> <li>Refer to Q1.12</li> <li>Criteria such as impact on healthcare costs, law suits, welfare of children and families, resident's petitions are very difficult to apply and quantify and are not typically used for Class EAs such as this.</li> </ul>
Q4.2	Timing of improvements	<ul style="list-style-type: none"> <li>Timing of Improvements is an evaluation criterion that considers implementation time and degree of benefits achieved.</li> <li>We do note that alternatives subject to construction of a new development road will be subject to timing as dictated through the development process (estimated 5-15 year time frame). City of Hamilton does not control the timing of this process.</li> </ul>
Q4.3	Air quality and prevailing winds	<ul style="list-style-type: none"> <li>Refer to Q1.9</li> </ul>
Q4.4	Impacts to property values, property damage	<ul style="list-style-type: none"> <li>Business impacts and property needs are included in the evaluation criteria.</li> </ul>
<b>Q5. Other Comments</b>		
Q5.1	What happened to the commitment to cul-de-sac Sandy Drive 20 years ago?  History of issue to realign Fruitland Road is over 20	<ul style="list-style-type: none"> <li>Historical decision making dates back to the former City of Stoney Creek.</li> <li>Former City of Stoney Creek Council decisions, following the 1992 Fruitland Road By Pass Class EA were made under a different set of facts, assumptions and circumstances.</li> <li>The EAA forbids construction based on an expired Class EA document.</li> </ul>

Issues and Comments		Responses
	years, what happened to the commitment and funding? Keep promises made.	<ul style="list-style-type: none"> <li>• Please see answer to Q1.7.</li> </ul>
Q5.2	Remove designated arterial and truck route on Fruitland Road and place it on the by-pass, implement traffic calming measures on Fruitland Road	<ul style="list-style-type: none"> <li>• The City of Hamilton Truck Route Master Plan Study is addressing the designation of Fruitland Road and the recommendations of this study were presented to the Public Works Committee on May 31, 2010 and approved by City Council on June 9, 2010.</li> <li>• Council's decision is to support study recommendation - Fruitland Road is to remain a full time truck route.</li> <li>• This EA would recommend to the Truck Route Subcommittee that any new road built to support truck traffic as a result of this study become the designated truck route.</li> <li>• Alternative 3D provides for some traffic calming through gateway features.</li> <li>• Please refer to Q1.7</li> </ul>
Q5.3	Upgrade, widen other roads (e.g., Dewitt Road, Glover Road) before building a Fruitland Road by-pass	<ul style="list-style-type: none"> <li>• Upgrades to other roads are not identified as part of our alternatives.</li> </ul>

#### 5.1.4.2 Public Information Centre #2

The second PIC was held on Tuesday June 15, 2010 from 6:00 pm to 8:00 pm at the Stoney Creek Municipal Service Centre – Lobby located at 777 Highway 8 in Stoney Creek.

Representatives from the City of Hamilton and AECOM staff were present at the PIC to provide information and answer questions.

##### Presentation Material

The information presented at PIC # 2 included:

- Welcome
- Study area limits
- Background information
- Purpose of the study
- Natural heritage environmental features and constraints
- Social and cultural features
- Existing and future traffic conditions
- Problem and opportunity statement
- Overview of the Class Environmental Assessment Process
- PIC No.1 and Meeting with the Fruitland-Winona Community Advisory Committee (CAC)
- Proposed Alternative Solutions
- Alternatives 1 to 3D Drawings
- Evaluation of alternative solutions
- Preliminary recommended solution and rationale
- Gateway feature / pedestrian crosswalk enhancement feature
- Next steps
- How to provide input

##### Attendance

Fifty-eight (58) people signed in at the PIC with the majority of the participants being residents including members of the Fruitland-Winona CAC, land developers, local business owners and several Mohawk College students.

##### Comments and Responses

There were 6 comment sheets submitted at the PIC and following the PIC, additional comment sheets and emails were received, which can be found in **Appendix G**. From discussions with PIC attendees, the general consensus was split. From the one on one discussions and submitted comment sheets, many agreed that the preliminary recommended solution (Alternative 3D) can address the problems with Fruitland Road. Alternatively some attendees expressed concern about the construction of a new north-south road within the Fruitland-Winona Secondary Plan Area noting the possibility that new residences on the new road could experience similar impacts as currently being experienced on the existing Fruitland Road. The concern is that the new road is simply shifting the issues (i.e., vehicular through and truck traffic) to the future road.

In addition, several residents noted their dissatisfaction with Alternative 3D as it may take a relatively long time to implement (dependent on initiation by development community) and does not significantly remove traffic from Fruitland Road compared to the Alternative 2 series which includes cul-de-sacs. **Table 11** provides a summary of comments, questions, suggestions and issues expressed in the comment sheets along with responses. See **Appendix G** for all public consultation activities.

**Table 11 PIC # 2 Issues and Response Table**

Issues and Comments		Responses
<b>Q1. Alternative Solutions</b>		
Q1.1	<ul style="list-style-type: none"> <li>• Increase in heavy trucks on Dewitt Road (safety – schools).</li> <li>• Industries that utilize trucks should be made aware of truck routes.</li> <li>• Supports recommended solution (alternative 3D).</li> </ul>	<ul style="list-style-type: none"> <li>• Difficult to determine origination and destination of trucks using Hamilton roads.</li> <li>• Most efficient way to guide trucks is by posting signs along designated truck routes.</li> <li>• No response required.</li> </ul>
Q1.2	<ul style="list-style-type: none"> <li>• How will the general public be affected?</li> </ul>	<ul style="list-style-type: none"> <li>• Recommended solution allows for the general public to travel Fruitland Road as they currently do although some changes would be expected as a result of traffic calming measures. In addition, residents may make use of the additional roadway linkage (i.e., Alternative 3D) from Barton Street to Highway 8 between Fruitland Road and Jones Road.</li> </ul>
Q1.3	<p><u>Alternative 1</u></p> <ol style="list-style-type: none"> <li>1. Larger volumes of traffic would occur at intersection of Sherwood Park/Fruitland Road.</li> <li>2. This intersection would require a four way stop or traffic light which could increase the speed at which people race to beat the light, worsen safety and response time.</li> <li>3. Accessibility to the community centre at Sherwood Park Road will be extremely hindered with this new intersection at Fruitland Road/Sherwood Park Road.</li> <li>4. With the future development of Fruitland-Winona secondary plan, the volume of the fire and</li> </ol>	<p><u>Alternative 1</u></p> <ol style="list-style-type: none"> <li>1. Agree – volumes would warrant some type of control. Increased volumes at intersection would reduce roadway user safety significantly.</li> <li>2. Enforcement issue re: speeding but signals typically maximize user safety.</li> <li>3. There maybe increased travel time for some users during peak periods, however, overall accessibility is not expected to be impacted.</li> <li>4. Typical of developing areas.</li> </ol>

Issues and Comments	Responses
<p>emergency service/waste removal/school bus services will increase. A traffic light or stop sign at the Fruitland/Sherwood intersection could worsen the safety and response time. Fruitland Road consists of 2 lanes only limiting the safety of emergency vehicles manoeuvring around stopped traffic.</p> <p>5. The potential connection at Sherwood Park Road would only be required if a cul-de-sac is implemented at Fruitland Road and Barton Street. The new development can exit, and enter using both Barton Street and Highway 8 as displayed in Alternatives 3 A, B, C and D. Access to QEW would change using various routes.</p> <p>6. A four-way stop intersection at Sherwood/Fruitland intersection would create excessive volumes of noise and air pollution, created by large volumes of stop and go traffic, and especially from loaded down transports.</p> <p>7. Direct impact on Watercourse 5 and impact on the deer that follow this watercourse.</p>	<p>5. Not sure how this relates to Alternative 1: Do Nothing.</p> <p>6. Agree that there would be an increase in noise and air pollution in the area of the intersection.</p> <p>7. Impacts to aquatic and wildlife features to be considered as part of SCUBE activities.</p>
<p><u>Alternative 2A with modifications</u></p> <p>1. <b>i)</b> Locate the cul-de-sac at Barton Street further north having the realignment veering south east sooner; this will remove conflict with residents located along Sandy Drive. Present location of cul-de-sac in both Alternatives 2A/B will affect the accessibility of the residences severely. Set up a barrier at Sandy Drive to allow local traffic to enter</p>	<p><u>Alternative 2A with modifications</u></p> <p>1. <b>i)</b> The cul-de-sac would require additional property and turning traffic would conflict with traffic from Sandy Drive. Safety would be a concern. The study team has reviewed this concept and noted it as undesirable due to concerns.</p>

Issues and Comments	Responses
<p>from Fruitland Road in one direction only, traffic can exit Sandy Drive southbound only.</p> <p><b>ii)</b> South end realignment meeting Highway 8 can be located further west. This will become a 3-way intersection and Fruitland Road can have stop signs at Fruitland Road and Regalview Drive. The new North-South artery as shown in all alternatives appears to interchange too close to a curvature located east of this intersection. These modifications to Alternative 2A will improve the safety factors at this intersection.</p> <p>2. A 3-way intersection at Highway 8 as shown in “Alternative 2A with modification” would be safer than the existing one at the Fruitland/Highway 8 which is currently a 4-way intersection. Traffic at Fruitland Road and Barton Street will flow effectively in all directions managing both present and future development.</p> <p>3. A large volume of existing and future traffic can be isolated to a safer route to improve safety on Fruitland Road for pedestrians, cyclists and the designated school bus pick-up areas on Fruitland Road.</p> <p>4. Existing truck traffic would be eliminated yet still remain accessible to larger service vehicles.</p> <p>5. If Alternative 2A with modifications, Fruitland Road would only consist of the existing local traffic. Most of the current speed infractions are created by the high volume of drive through traffic. A four-way stop at Fruitland Road and</p>	<p><b>ii)</b> The location of this connection would be determined in next stages of study. The Highway 8 intersection would be signalized and there is no site visibility concerns noted due to roadway curvature.</p> <p>2. All intersections within the City Authority will be designed for safe and efficient operation.</p> <p>3. Agree that Alternatives 2A and 2B would allow for reduced traffic and improved safety for all users.</p> <p>4. Agree that typical heavy truck traffic would be eliminated while still ensuring that Fruitland Road is still accessible to service vehicles.</p> <p>5. Speeding vehicles can be attributed to all users and is subject to enforcement.</p>

Issues and Comments	Responses
<p>Sherwood Park Road would also reduce much of the speed infractions on Fruitland Road. Excessive speed required by emergency service vehicles can be managed much easier and safer using Alternative 2A with modifications.</p> <p>6. In this alternative there would be full access from both north and south of Fruitland Road onto Sandy Drive. To exit from this community, Sherwood Park Road would give them easier and safer accessibility onto a major artery. These modifications to the alternative minimize any excessive new distances being travelled.</p> <p>7. Services will have same accessibility to the existing and new developments. All service vehicles can travel safer away from residential and school bus traffic. This could improve access time to highway collisions when being serviced from the Highway 8 fire department or any emergency calls from the residential, commercial or industrial communities. Arvin Ave fire will have full easy access.</p> <p>8. Lands can be utilized in all facets, including commercial and residential applications. Location and density planning will have no variance with Alternative 2A modifications.</p> <p>9. This alternative would give proper access for future development of the SCUBE area and also eliminate heavy construction traffic that would create excessive damage to Fruitland Road.</p> <p>10. Any existing noise and air pollution can be</p>	<p>6. As noted previously there are operational concerns with Alternative 2A based on modifications.</p> <p>7. All services have been considered in the evaluation of alternatives for this project.</p> <p>8. Alternatives 2A and 2B are noted as more restrictive than other alternatives with regard to future land development.</p> <p>9. Agree that roadway deterioration would be reduced if truck traffic was diverted.</p> <p>10. Alternative 3 series was noted as better for noise and air for</p>



Issues and Comments	Responses
<p>harnessed away from the local residents.</p>	<p>existing Fruitland Road residents particularly at the north end.</p>
<p><u>Alternatives 3 A, B and C</u></p> <ol style="list-style-type: none"> <li>1. All truck traffic will be routed through a series of left and right hand turns over a short distance, travelling from Highway 8 to Barton Street. Because large transports require wide turns, two turning lane intersections will not be of any advantage for moving traffic.</li> <li>2. Large volumes and heavy transport traffic can hinder everyday life, heavy noise and air pollution will create discomfort to family activities and N/S artery as seen in Alternatives 3 A, B and C will affect the community park as shown in the Fruitland/Winona development plans.</li> <li>3. Truck traffic will be hindered on these routes, causing increased and unnecessary travel time for drivers.</li> <li>4. Noise and air quality will be increased to unacceptable levels, because of transports having to make turns at close distances between Barton Street and the new North-South artery and Fruitland Road.</li> <li>5. The East West artery connecting to Sherwood Park Road will have direct impact on Watercourse 5.</li> <li>6. These alternatives will have a negative impact on the small deer population that is present along Watercourse 5.</li> </ol>	<p><u>Alternatives 3 A, B and C</u></p> <ol style="list-style-type: none"> <li>1. City limits design to be safe and efficient for trucks. Area traffic would have alternative routes available as part of overall grid. Area traffic in general is expected to grow as a result of area development.</li> <li>2. Corridor roadway designs will accommodate all users.</li> <li>3. Travel time depends on origination and destination.</li> <li>4. Design of intersection designated for truck use will minimize or mitigate impacts.</li> <li>5. Part of development consideration, less impact than for Alternatives 2A and 2B.</li> <li>6. Part of development considerations.</li> </ol>

Issues and Comments		Responses
Q1.4	<ul style="list-style-type: none"> <li>Alternative 3D will displace some homes on Barton Street required for the by-pass.</li> <li>The residents of Fruitland Road cannot wait another 20-40 years for a by-pass.</li> <li>A better solution must be proposed.</li> </ul>	<ul style="list-style-type: none"> <li>All properties for the new North-South road (Alternative 3D) will be acquired through the Fruitland-Winona Secondary Plan process.</li> <li>Timing of the Fruitland-Winona Secondary Plan is difficult to predict (development community initiative) however a 5-10 year implementation period is reasonable.</li> <li>Based on overall evaluation Alternative 3D is most preferred compared to other alternatives.</li> </ul>
<b>Q2. Preliminary Recommended Solution</b>		
Q2.1	Alternative 3D will make life easier and safe for the community.	<ul style="list-style-type: none"> <li>No response required.</li> </ul>
Q2.2	Agree with 3D assuming it does include gateway features installed in the near future.	<ul style="list-style-type: none"> <li>No response required.</li> </ul>
Q2.3	Having traffic turning on to Barton Street from or/to the QEW will increase pollution from all the stop and go movements.	<ul style="list-style-type: none"> <li>Yes, there is one additional stop. However, trucks may travel either on Barton Street or through the industrial area roads, such as Arvin Avenue and Sunnyhurst Drive to access Fruitland Road.</li> </ul>
Q2.4	Leaving Fruitland Road open with no access restrictions allow for a logical progression to the road network proposed within the Fruitland-Winona Secondary Plan as shown on land use Map B.7.8.1. presented at the June 24 <sup>th</sup> new North-South Road may not be any better. We are simply shifting the issues to the future residents with housing and access along the future road. Fruitland Road north of Barton Street is the link to QEW. So trucks will want a direct route from Highway No.8 east and west of Fruitland Road.	<ul style="list-style-type: none"> <li>New development can implement housing types and layout to complement/mitigate the proposed road use.</li> <li>Also, the road network can allow for small vehicle travel along Fruitland Road (North-South) and truck traffic can utilize Barton Street or Arvin/Sunnyhurst for connection to the new roadway.</li> </ul>

Issues and Comments		Responses
Q2.5	Recommended solutions involve construction of a new collector road within the SCUBE West Secondary Plan. Intention is to designate a truck route in the future and divert truck traffic from Fruitland Road. Support the plan to reduce traffic from the current residential area but do not support relocating the truck route. Question the need for the suggested truck route in this location considering the existing alternative routes are available. Relocation of the truck route to the SCUBE area would not solve the problem but only move it to a new residential area.	<ul style="list-style-type: none"> <li>Truck route study identifies need for truck route on Fruitland Road or in close proximity to Fruitland Road which has an interchange with the QEW. The new north south road would be an arterial roadway and truck route and implementation of frontage development and roadway corridor design would recognize and mitigate the designation.</li> </ul>
Q2.6	North-South artery as seen in Alternative 3D will affect the community park as shown in the Fruitland/Winona development plans.	<ul style="list-style-type: none"> <li>Corridor roadway designs will accommodate all users.</li> </ul>
Q2.7	Truck traffic will be hindered on these routes, causing increased and unnecessary travel time for drivers.	<ul style="list-style-type: none"> <li>Travel time depends on origination and destination.</li> </ul>
Q2.8	<ul style="list-style-type: none"> <li>Alternative 3D will not address speeding heavy trucks. Consider portable speed bumps and/or stop sign as a temporary measure.</li> </ul>	<ul style="list-style-type: none"> <li>Alternative 3D Fruitland Road gateway features in conjunction with new North-South road will address speeding and truck traffic on Fruitland Road.</li> <li>Speed bumps and/or stop sign at Sherwood Park can slow down traffic, however, may also result in more noise.</li> </ul>
<b>Q3. Other Comments</b>		
Q3.1	Safety to be key issue considered before finalization of design.	<ul style="list-style-type: none"> <li>Safety is a key item and will be considered further in next stages of study and design.</li> </ul>
Q3.2	More detail should be paid to the environment during	<ul style="list-style-type: none"> <li>The environment is a key item and will be considered further in next stages of study and design.</li> </ul>

Issues and Comments		Responses
	construction.	
Q3.3	Prefer Alternatives 2A and 2B as it will have better flowing traffic so there is less pollution from traffic.	<ul style="list-style-type: none"> <li>No response required.</li> </ul>
Q3.4	The reclassification of Fruitland Road lower than a minor arterial road will be a tough call. The Secondary Plan suggests that the new North-South Road be classified a collector with "Truck Traffic". Are you not just simply shifting the issue and confusing matters from a hierarchy of roads with this planning area?	<ul style="list-style-type: none"> <li>Recognizing that the new North-South road will become a designated truck route, the Fruitland-Winona Secondary Plan process will identify appropriate land uses, setbacks, ban of individual driveways and design guidelines that will minimize or mitigate impacts from truck traffic.</li> </ul>
Q3.5	Any by-pass that is parallel to Jones and Fruitland Road should continue through Barton to Arvin Ave. which will improve access to the QEW with minimal disturbance to local residents.	<ul style="list-style-type: none"> <li>How the new North-South road is integrated with adjacent road network (including Arvin Avenue) will be looked at in Phase 3 of the Class EA study.</li> </ul>
Q3.6	<p>Which houses need to be removed for proposed road that aligns with Sunnyhurst?</p> <p>What will happen to 720 Barton Street?</p> <p>What will be done with the land on the north-side of Barton Street in this area?</p> <p>What is the time frame before we start seeing changes and completion?</p>	<ul style="list-style-type: none"> <li>At this time 2-3 homes on the south side of Barton Street may be impacted by the proposed North-South road.</li> <li>All potentially impacted properties on Barton Street have been made aware of the potential need to acquire property for the road and the planning process.</li> <li>Any requirements for land on the north side of Barton Street (i.e., additional turning lane) will be determined in Phase 3 of the study.</li> <li>Timing of the Fruitland-Winona Secondary Plan is difficult to predict (development community initiative) however a 5-10 year implementation period is reasonable.</li> </ul>

Issues and Comments	Responses
<p>Q3.7</p> <ul style="list-style-type: none"> <li>• Will the location of the new road entering at Highway 8 be finalized before council approves the recommended alternative?</li> <li>• When do you expect the approval to take place?</li> <li>• In the review period after phase 1 &amp; 2 is there an appeal process before moving on to phases 3 &amp; 4?</li> <li>• What is the reason for 2 alternatives of the north-south road – curved and straight-existing at two different locations at Highway 8 approximately 400 feet apart?</li> <li>• Are the Hamilton Horizon utilities, located on Highway 8, moving, selling/or part land selling or is the City considering taking over the property/building for various end uses?</li> <li>• Unable to sever lots fronting Highway 8 due to the lack of services recommended alternative restricts development of property.</li> <li>• Is there a compensation process if persons' land's development potential is reduced by the new road?</li> </ul>	<ul style="list-style-type: none"> <li>• No, this will be subject to Phase 3 (alternative design concepts) based on the recommended alternative solution (Alternative 3D).</li> <li>• Timing of the Fruitland-Winona Secondary Plan is difficult to predict (development community initiative) however a 5-10 year implementation period is reasonable.</li> <li>• Appeal process will only be subject to end of Phase 4 (ESR filing).</li> <li>• The two North-South Highway 8 intersection alternatives were identified as alternative design concepts to be evaluated in Phase 3.</li> <li>• There are no plans to move or change the Hamilton Horizon Utilities property.</li> <li>• Need to see exact location of property.</li> <li>• The Fruitland-Winona Secondary Plan process provides opportunities for property owners to consolidate land holdings and optimize development potential.</li> <li>• The development community will be responsible for assembling the required lands for the road.</li> </ul>

## 6. Conclusions and Recommendations

### 6.1 Conclusions

This Class EA Phase 1 and 2 report addresses the problem and opportunity statement as presented in section 3.0 and provides the basis for completing Phases 3 (alternative design concepts) and 4 (Environmental Study Report) of the Municipal Class EA process.

### 6.2 Recommendations

Recommendations for carrying forward include:

- Public comments and input (to be considered in future EA activities) on the Phase 1 and 2 report will be sought through a 30-day review process with no possibility for a Part II Order (appeal) to the Ministry of Environment;
- The remaining steps of the Schedule 'C' Class EA planning process (i.e., Phases 3 and 4) be completed through the Integrated MEA Class EA and *Planning Act* process, with the responsibility for completion of the planning process assigned to benefitting Fruitland-Winona developers;
- Through the remaining planning process and ultimate recommended design concept the new road in addition to vehicular and pedestrian requirements must be able to accommodate new services;
- Following construction and opening of the new North-South road, the current truck route designation on Fruitland Road be permanently moved to the new road as this road is to be built for this purpose;
- Following construction and opening of the new North-South road, the City of Hamilton transportation staff will monitor local traffic network operations to ensure that any issues with the new road network are addressed and reported back to the Public Works Committee; and
- As an interim measure Council should consider advancing the implementation of Gateway Features<sup>6</sup> (as identified in the "Do Nothing" alternative and Alternative 3D) on Fruitland Road which will address some of the safety and operational problems on Fruitland Road until the new North-South road is constructed and put into service.

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<sup>6</sup> At its meeting on September 29, 2010 City Council passed the staff recommendation (see **Appendix H**) to implement Alternative 3D in conjunction with Fruitland Road Gateway Features.