

# Wyndham Street Municipal Class EA

## Existing Conditions Technical Memorandum

Draft

Prepared for:  
City of Guelph



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**RVA 215632.01**

**April 18, 2022**



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April 18, 2022

RVA 215632.01

City of Guelph  
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Guelph, ON N1H 3A1

**Attention: David Di Pietro**

Dear David:

Re: Wyndham Street Schedule B Municipal Class Environmental Assessment Draft  
Existing Conditions Technical Memorandum

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Please find enclosed the Draft Existing Conditions Technical Memorandum for the Wyndham Street Municipal Class Environmental Assessment (Schedule B), completed by R.V. Anderson Associates Limited.

If you have any questions, please do not hesitate to contact the undersigned by email or at 905-685-5049 ext. 4211.

Yours very truly,

**R.V. ANDERSON ASSOCIATES LIMITED**

**Andrew McGregor, MCIP, RPP**  
Senior Planner, EA & Approvals

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Encls.

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## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>1</b>
<b>2.0</b>	<b>EXISTING CONDITIONS.....</b>	<b>1</b>
2.1	Natural Environment.....	2
2.2	Cultural Heritage Resources.....	4
2.3	Stage 1 Archaeological Assessment: Baseline Conditions .....	6
2.4	Existing Traffic and Transportation Conditions .....	8
2.5	Topographic Survey .....	10
<b>3.0</b>	<b>PHASE 2 CLASS EA – ALTERNATIVE SOLUTIONS .....</b>	<b>11</b>

### LIST OF FIGURES

Figure 1 – Wyndham Street Class EA Study Area.....	1
Figure 2 - Deeply Buried Archaeological Potential.....	7
Figure 3 – Wyndham Street at Macdonell Street Seasonal Patio Configuration.....	9

### LIST OF TABLES

Table 1 – Natural Environment Field Investigations Schedule .....	4
Table 2 – Known and Potential Cultural Heritage Resources.....	4

### APPENDICES

APPENDIX 1	NATURAL ENVIRONMENT EXISTING CONDITIONS MEMO
APPENDIX 2	CULTURAL HERITAGE REPORT: DESKTOP RESULTS
APPENDIX 3	STAGE 1 ARCHEOLOGICAL ASSESSMENT: BASELINE CONDITIONS
APPENDIX 4	TRANSPORTATION: EXISTING CONDITIONS MEMO

## 1.0 INTRODUCTION

The City of Guelph has initiated a Municipal Class Environmental Assessment (Class EA) for improvements to Wyndham Street from Carden Street to Woolwich Street. The study will consider options for the Wyndham Street corridor, including lane reduction from four to two lanes, and the implementation of a traffic circle in St. George's Square.

The study area consists of Wyndham Street North from Carden Street to Woolwich Street (intersections included), a distance of approximately 500m, as illustrated in **Figure 1**.

The report summarizes the existing conditions within the study area as it pertains to the natural, archaeological and cultural heritage, transportation, topographical environments. These will be incorporated into the evaluation of alternative solutions in Phase 2 of the Wyndham Street Class EA.



Figure 1 – Wyndham Street Class EA Study Area

## 2.0 EXISTING CONDITIONS

Under Phase 2 of the Class EA process, all reasonable solutions to address the problem and opportunity statement will be identified and evaluated, including the “Do Nothing”

alternative. In order to adequately identify, develop and evaluate these alternative solutions, a thorough understanding of the existing conditions with the study area is required.

As such, various technical studies were undertaken to assess the existing conditions of the study area, including: Natural Environment Existing Conditions Assessment, Cultural Heritage Resource Assessment (Existing Conditions), Stage 1 Archaeological Assessment: Baseline Conditions, Transportation Existing Conditions Assessment, and Topographic Survey. As part of the Downtown Guelph Capital Implementation Plan, a Subsurface Utility Engineering (SUE) Survey and Geotechnical Survey were also carried out on the Wyndham Street corridor.

The findings of these studies will be incorporated into the evaluation of alternative solutions.

## 2.1 Natural Environment

As a component of the Environmental Impact Study and in advance of field investigations, a desktop review of the existing natural environment was completed by RVA's Ecological Services Group. A full copy of Natural Environment Existing Conditions Assessment Technical Memorandum is located in **Appendix 1**.

The findings of the Natural Environment Existing Conditions Assessment will be used to evaluate the short- and long-term ecological impacts associated with implementing each of the Alternative Solutions (Phase 2 EA). The Natural Environment Existing Conditions Assessment will then be updated through a comprehensive field program to identify impacts and mitigation measures associated with implementing the Preferred Solution, in an Environmental Impact Statement (EIS). The EIS will conform to Guidelines for the Preparation of Environmental Impact Studies (City of Guelph, ver 2 April 2020).

Key findings of the Natural Environment Existing Conditions Assessment are summarized below.

### 2.1.1 Aquatic Habitats and Communities

Within the vicinity of the Wyndham Street corridor, the Speed River, a cool water fish habitat, flows southeast adjacent to the northern extent of the study area. Due to the study area being approximately 70 meters from the Speed River, impacts to the watercourse are not anticipated. Given the setback from the watercourse, and the absence of aquatic SAR, an aquatic habitat assessment and fish inventory will not be required for the Speed River as part of this assignment.

### **2.1.2 Wildlife & Wildlife Habitat**

The study area is highly urbanized, with the natural environment consisting primarily of ornamental trees on City property. The study area was reviewed for breeding birds, herpetofauna, mammals, and insects. In addition, a preliminary screening of Significant Wildlife Habitat (SWH) was completed.

While no targeted field surveys are planned for wildlife, incidental observations of wildlife, including call and signs, will be recorded during each site visit. If rare or significant wildlife species are observed, their location(s) will be recorded.

### **2.1.3 Vegetation and Trees**

The background review did not identify any significant plant species within the vicinity of the Study Area, however a number of street trees are present within the study area.

RVA will undertake field investigations in the early summer of 2022 to carry out Ecological Land Classification (ELC) for vegetation communities, a single-season floral inventory, and a detailed tree inventory and preservation plan. The tree inventory will be used to develop a Preservation Plan to mitigate impacts to the trees associated with implementing the preferred solution.

### **2.1.4 Designated Natural Areas**

A Natural Heritage System associated with the Speed River, northeast of the Wyndham Street corridor is designated as a Significant Natural Area as per Schedule 4: Natural Heritage System of the City's Official Plan which includes Significant Valleylands (Schedule 4D) and Significant Wildlife Habitat (Schedule 4E).

It is noted that the study area is approximately 70 meters from the Speed River. No additional Designated Natural Areas were noted by agencies or located during the background review.

### **2.1.5 Field Program**

Based on the gaps identified during the desktop background review, the proposed field investigations required to complement the existing inventory of the natural environment and to characterize the natural heritage features within study area are summarized in

Table 1.

**Table 1 – Natural Environment Field Investigations Schedule**

Survey Type	Schedule	Level of Effort
Ecological Land Classification	June – August 2022	Single Season Site Visit
Early Summer Floral Inventory	June – August 2022	Single Season Site Visit
Tree Inventory	TBC	Single Season Site Visit
Wildlife Habitat	June – August 2022	Single Season Site Visit

## 2.2 Cultural Heritage Resources

As a component of the Cultural Heritage Resource Assessment (CHRA), a desktop review of the Cultural Heritage resources within the study area was undertaken to identify previously identified known and potential cultural heritage resources (CHRs) and Cultural Heritage Landscapes (CHL). The complete Cultural Heritage Report: Desktop Results is provided in **Appendix 2**.

The Wyndham Street EA study area is largely located within the Old Downtown Candidate CHL and the north end of the study area is located within the Woolwich Street Candidate CHL. Known CHRs in the study area include 5 properties Designated under Part IV of the *Ontario Heritage Act*, and 23 properties listed on the *City of Guelph Municipal Heritage Register*. Two previously identified CHRs within the Study Area have been demolished. Key findings of the background research and desktop data collection are summarized in **Table 2**.

**Table 2 – Known and Potential Cultural Heritage Resources**

Address/Location	Heritage Status
Old Downtown Candidate CHL	Potential CHR - Identified as a candidate CHL in the Cultural Heritage Action Plan

Address/Location	Heritage Status
Woolwich Street Candidate CHL	Potential CHR - Identified as a candidate CHL in the Cultural Heritage Action Plan
176 Wyndham St N	Demolished
166 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
160-164 Wyndham St N	Demolished
146-150 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
138 Wyndham St N	Known CHR – Designated under Part IV of the Ontario Heritage Act ( <a href="#">By-law (2006)-17979</a> )
120 -126 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
116-118 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
110-114 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
102 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
98 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
147-159 Wyndham St N (Wellington Hotel)	Known CHR – Designated under Part IV of the Ontario Heritage Act ( <a href="#">By-law (1979)-10057</a> ); Subject to a conservation easement by the Ontario Heritage Trust
137-145 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
133 Wyndham St N	Known CHR – Designated under Part IV of the Ontario Heritage Act ( <a href="#">By-law (2006)-17980</a> )
125 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
123-125 Wyndham St N	Known CHR - Listed on Municipal Heritage Register



Address/Location	Heritage Status
115-121 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
107-109 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
101-109 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
97-99 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
93 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
16-18 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
12 Wyndham St N	Known CHR – Designated under Part IV of the Ontario Heritage Act ( <a href="#">By-law (1979)-10190</a> )
41 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
37-43 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
29-35 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
27 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
19-25 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
15 Wyndham St N	Known CHR – Designated under Part IV of the Ontario Heritage Act ( <a href="#">By-law (1990)-13553</a> )
8-10 Wyndham St N	Known CHR - Listed on Municipal Heritage Register
1-5 Wyndham St N	Known CHR - Listed on Municipal Heritage Register

The Cultural Heritage Report: Desktop Results will be updated in a Cultural Heritage Resource Assessment, including field visits, following the selection of a preferred alternative solution to assess the impacts of the proposed undertaking in consideration of its determined cultural heritage value and to develop appropriate mitigation measures.

### 2.3 Stage 1 Archaeological Assessment: Baseline Conditions

As a component of the Stage 1 Archaeological Assessment, a Baseline Conditions Report of the study area was completed as part of the EA to determine the archaeological potential of the study area. The complete Stage 1 Archaeological Assessment: Baseline Conditions report is provided in **Appendix 3**.

It was determined that the study area meets the following criteria indicative of archaeological potential:

- Previously identified archaeological sites within 1 kilometer;
- Water sources: primary, secondary, or past water source (Speed River, Grand River Watershed);
- Early transportation routes (Wyndham Street, Woolwich Street, Macdonell Street, Quebec Street, Norfolk Street);
- Proximity to early settlements (City of Guelph, St. George's Church, Public Burying Ground); and
- Well-drained soils (Guelph loam, Burford loam).

Background research indicates that the original location of St. George's Church within St. George's Square exhibits deeply buried archaeological potential. The nature of potential and ASI's recommendations in this area are still being determined but may require construction monitoring to identify any archaeological material associated with the church. These areas are highlighted in yellow in **Figure 2**.



**Figure 2 - Deeply Buried Archaeological Potential**

The Stage 1 Archaeological Assessment: Baseline Conditions report will be updated as a comprehensive Stage 1 archaeological assessment, including a detailed property inspection, following the selection of a preferred alternative solution (Phase 2 EA). The complete Stage 1 Report will identify areas requiring further assessment and appropriate survey methods, as per the 2011 Standards and Guidelines for Consultant Archaeologists (S & G), administered by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI, 2011).

## **2.4 Existing Traffic and Transportation Conditions**

As a component of the Traffic Impact Study (TIS), an Existing Traffic and Transportation Conditions Assessment, documenting the existing multi-modal transportation conditions within the study area was prepared by RVA's Transportation Planning Group. A full copy of this assessment is provided in **Appendix 4**.

The findings of the Transportation Existing Conditions Assessment will be used to evaluate the short- and long-term transportation impacts associated with each of the Alternative Solutions to be identified during Phase 2 of the Class EA. The Existing Conditions Assessment will then be updated to identify impacts and mitigation measures

associated with implementing the Preferred Solution in a comprehensive Traffic Impact Study.

Key findings of the Transportation Existing Conditions Assessment are summarized below.

### 2.4.1 Roadway Configuration

Wyndham Street North is a north-south oriented road classified as a Downtown Main Street under the jurisdiction of the City of Guelph. The majority of Wyndham Street North has an urban 4-lane cross section (two lanes per direction) with parallel on-street parking.

As part of the Seasonal Patio Program, between April and October 2021, Wyndham Street between Carden Street and Cork Street was closed to vehicle traffic every Friday at 9 a.m., reopening at 5 a.m. on Monday, with no on-street parking to allow for a seasonal patio program. During the week, the patios remained in place, with no on-street parking allowed, however the road operated as a 2-lane (one lane in each direction) as shown in **Figure 3**. At this time, the Seasonal Patio Program is approved to continue through 2023. Whether the seasonal road closures will continue, and the extent of these potential road closures beyond the currently approved Seasonal Patio Program is not currently known.



**Figure 3 – Wyndham Street at Macdonell Street Seasonal Patio Configuration**

## 2.4.2 Study Area Intersections

The turning movements, capacity, collision history, and 2051 capacity of each intersection were analyzed. A detailed breakdown of the findings are provided in **Appendix 4** and summarized below.

Intersection capacity analysis completed for the study area intersections under weekday AM, PM and Saturday Midday peak hours, indicates that all intersections are currently operating satisfactorily with no critical movements. Under future (2051) do-nothing conditions, the existing infrastructure can accommodate the projected traffic volumes and no geometric improvements would be required.

Based on historical collision data from 2016 to 2020, a total of 131 collisions have been reported over the five-year period within the study area corridor. Of the 131 total collisions recorded, 82 occurred at intersections and the remaining 49 occurred within midblocks. Turning movement collisions were the predominant collision type at intersections within the study area with a total of 23 or 28% recorded over the five years of historical data. Rear end collisions were the next most common with 18 or 22% recorded. The intersection of Wyndham Street with Woolwich Street contained the most collisions with 32 or 39% of the total collisions recorded here.

## 2.4.3 Active Transportation Facilities

### 2.4.3.1 Pedestrian Facilities

Pedestrian facilities within the corridor include sidewalk on both sides of the street along the entire corridor in the study area from Woolwich Street to Carden Street. Pedestrian crossings are located at each intersection along the corridor, with additional signalized mid-block pedestrian crossings located at 112 Wyndham Street, and 146 Wyndham Street North.

The City's Transportation Master Plan Update designates Wyndham Street within the study area as a part of the enhanced pedestrian realm (i.e., wide sidewalks and high-quality walking environment).

### 2.4.3.2 Cyclist Facilities

There are no designated bicycle facilities within the study. Wyndham Street is currently designated as an "on-road" cycling facility; however, the City's Transportation Master Plan Update designates Wyndham Street within the study area as a part of the core Spine Cycling network, requiring designated cyclist facilities.

#### **2.4.4 Transit**

Seven different Guelph Transit Routes service Wyndham Street within the study area corridor. The City's Transportation Master Plan Update identifies Wyndham Street within the study area as part of the City's Quality Transit Network, recommended for lane conversion, requiring the conversion of general traffic lanes to dedicated transit lanes (either at different times of day or all-day).

Guelph Central Station is located south of the study area at Carden Street and Wyndham Street. The Station serves Guelph Transit, GO transit (bus and rail), Via Rail and Flixbus services.

#### **2.5 Topographic Survey**

A topographic survey was completed for the study area including 50 metres to the east and 50 metres to the west of each of the intersections within the study area. The topographic survey will be provided to the City in AutoCAD Civil 3D

Base plans showing plan and profile of the road corridor will be prepared from the topographic survey to sufficiently illustrate the configuration and location of the adjoining boundary limits as required to evaluate alternative solutions and design concepts throughout the EA.

### **3.0 PHASE 2 CLASS EA – ALTERNATIVE SOLUTIONS**

Under Phase 2 of the Class EA process, all reasonable solutions to address the problem and opportunity statement will be identified and evaluated, including the "Do Nothing" alternative, in consideration of the existing conditions with the study area as described in this Technical Memorandum.