1. INTRODUCTION

1.1 BACKGROUND

The Guelph and Area Transportation Study (GATS) was undertaken jointly by the City of Guelph and the County of Wellington in 1991 to anticipate and address some of the transportation impacts of continued growth and changes to the provincial highway network. The findings and recommendations of the study, completed in 1994, covered all areas of the transportation system, including (a) Road Network; (b) a Cycling Master Plan; (c) Local Transit; (d) Pedestrian Facilities; (e) Rail Facilities; (f) Inter-City Transit Service; and (g) Downtown Parking.

In April, 2001, the City of Guelph adopted a Transportation Strategy Update following an extensive consultation process that included Guelph residents, businesses, stakeholder groups, institutions, as well as the County of Wellington and Ministry of Transportation Southwest Region representatives. The new strategy embodies a transportation vision and general and mode-specific goals, objectives and policies (see Figure 1.1). The strategy also provides a framework based on community consensus for developing long-term transportation plans. The framework challenges land use and transportation planning to work towards a transportation system that is economically, socially and environmentally sustainable. It recognizes that the automobile and freight truck, given their cost/time/convenience advantages, are the preferred modes of choice for individuals and businesses. At the same time, it is necessary to provide alternative modal choices to minimize the social and environmental costs of transportation without reducing economic efficiency. Accordingly, the framework stipulates that the road right-of-way should accommodate both the automobile/truck and alternative modes of travel and that the roadway improvements should be evaluated on the basis of safety, mobility, community impacts and efficient goods movement.

FIGURE 1.1: TRANSPORTATION PLAN—A COMPONENT OF THE OFFICIAL PLAN

1.2 STUDY PURPOSE

The City of Guelph and the County of Wellington initiated the 2005 Guelph-Wellington Transportation Study (GWTS) to address the long-term transportation needs and improvements in accordance with the Official Plan policies of Guelph and Wellington County, the City's Transportation Strategy and SmartGuelph Principles. Figure 1.2 below shows the Study Area.

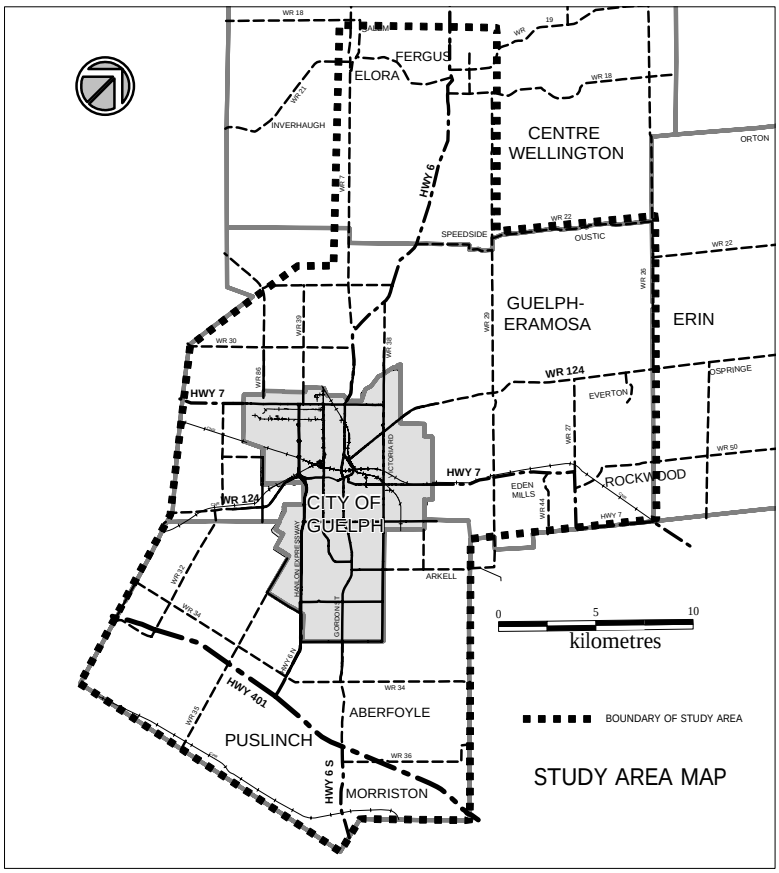


FIGURE 1.2: STUDY AREA

The specific Study Objectives identified in the Terms of Reference (included in the Technical Appendix) are:

- Identify transportation needs and recommend practical improvements for specific areas such as new Growth Areas, the Downtown, Older Built-up Area, the University Precincts in Guelph, and areas such as Aberfoyle and Fergus in Wellington County;
- Recommend Transportation Demand Management (TDM) measures, as appropriate to different areas, that will encourage reduced use of the automobile and greater use of alternative modes such as transit, walking and cycling;

- Identify improvements to City and County roadways, establish need and justification to meet the Provincial EA process, and recommend a coordinated implementation strategy;
- Review Provincial highway initiatives affecting Guelph and Wellington County and identify priorities based on inter-regional travel and truck traffic patterns;
- Review the growing inter-regional travel between Guelph/Wellington, Region of Waterloo and the GTA, and identify opportunities for transit initiatives to serve this need.

1.3 THE TRANSPORTATION PLANNING PROCESS

1.3.1 Basic Planning Process

The typical transportation planning process is composed of four essential stages, as shown in Figure 1.3 below:

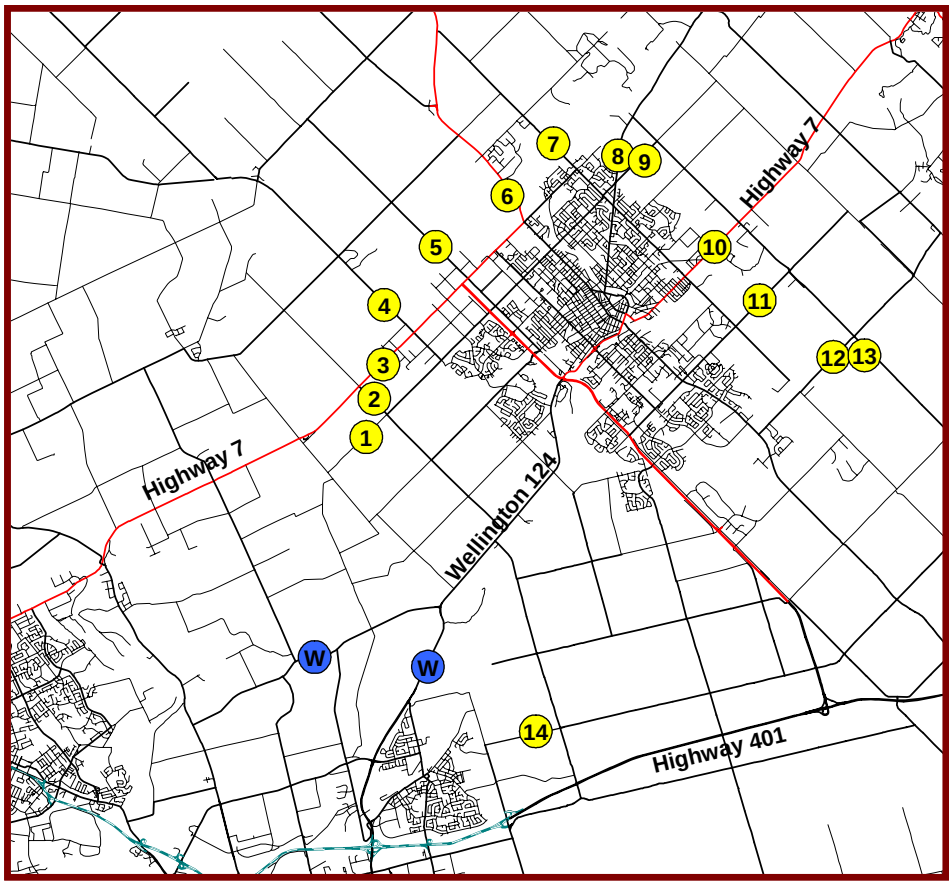
1) Forecasting the location and amount of future population and employment growth within and external to the study area.
2) Based on the above growth forecast, estimate the amount of travel within, external and through the study area and determine the need for transportation improvements based on the impact of increased travel demands on the area transportation system.
3) Identify and evaluate alternative transportation improvements and initiatives to meet future transportation needs leading to selection of a preferred solution.
4) From the foregoing, prepare an overall plan, policy framework and prioritized implementation strategy to establish an overall transportation master plan for the area.

FIGURE 1.3: THE GENERIC TRANSPORTATION PLANNING PROCESS

1.3.2 Data Sources

Transportation planning relies on an assortment of traffic, demographic and socio-economic data to determine existing and future travel demands and patterns. The primary data sources used in the study include the following:

1) *The 1996 and 2001 Transportation Tomorrow Survey*: A household telephone survey of residents identifying their travel rate, origin and destination locations and the travel mode used on a typical weekday. TTS surveys are undertaken every five years by the Ministry of Transportation, the GTA municipalities and external municipalities, including the City of Guelph and Wellington County. While this survey attempted to tabulate all travel during a typical 24-hour period, trip data for the afternoon peak hour (the highest hour of traffic during the day) was the focus of this study.
2) *Historical and 2001Statistics Canada Census Data:* The 2001 census and historical census information provided existing and historical population and employment information and historical growth rates for the study area and beyond. This data was used to assist with population and employment forecasts for the study area.
3) *City of Guelph Household and Population Projections 2001–2027* (C.N. Watson and Associates Ltd., April 2003). Supplementary data provided by the City's Planning Department.
4) *Wellington County Population and Household Forecast by Local Municipality 2001–2022* (C.N. Watson and Associates Ltd., January 2003). Supplementary data provided by the County's Planning Department.
5) *External Cordon Origin Destination Data:* To identify the amount of travel into and out of the study area, roadside interview travel surveys were undertaken to identify the origin, destination and trip purpose of traffic entering, leaving and traveling through the study area. The survey was conducted during weekday afternoons between the hours of 3:00 PM to 6:00 PM during September and October of 2003. The travel survey set-up, time and locations are summarized in Figure 1.4.
6) *Traffic Count Data:* The City of Guelph conducted intersection traffic counts at most key intersections in the study area between 2001 and 2003. The County of Wellington provided a limited amount of available data on the County roads. This data was use to determine the existing travel demands on the roadway system.
7) The City of Guelph Transportation Strategy Update: Public Attitude Survey (Harry Cummings & Associates, October 2000).



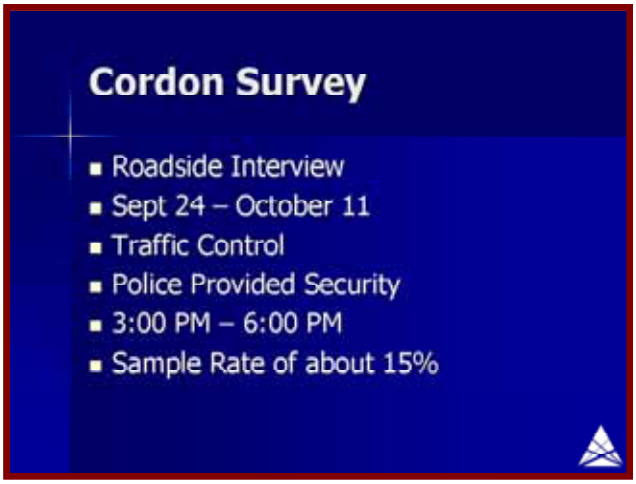
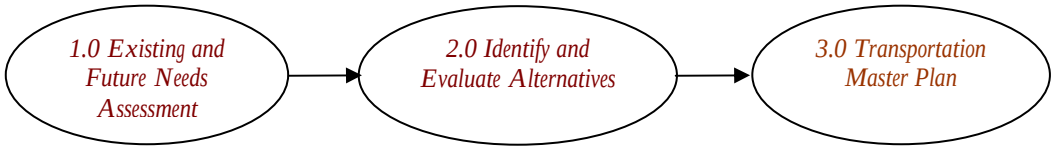


FIGURE 1.4: EXTERNAL CORDON ORIGIN-DESTINATION SURVEY (2003)

1.3.3 The Guelph–Wellington Study Process

The study was undertaken in three phases to meet the requirements outlined in the Terms of Reference (included in the Technical Appendix). Public consultation was a major part of the study process, as well as consultation with elected officials and sharing of technical information with the Ministry of Transportation (Southwestern Region) and the Regional Municipality of Waterloo.



1) *Phase 1.0 Existing and Future Needs Assessment:* The focus of this phase was in the identification of existing and future transportation demands and conditions throughout the study area for all modes (walk, cycling, public transit, trucks, automobile, rail) assuming no changes to the transportation network. The findings of this phase identify how the travel experience will change in Guelph, if no improvements are made.

2) *Phase 2.0 Identify and Evaluate Alternatives*: The findings of this phase identify the opportunities and constraints associated with achieving a more balanced transportation system while accommodating traffic into and through Guelph and Wellington. At this stage of the study, alternative improvements are systematically identified, screened and evaluated based on available information.

3) Phase 3.0 Transportation Master Plan: The results of the above were used to further refine the plan, develop an implementation strategy and carry out further consultation with City and County Council and the public.

1.3.4 The Study Organization

The study was directed by a Project Team comprising City of Guelph and County of Wellington staff, as well as members of the consultant team:

- *City of Guelph*: Rajan Philips, Geoffrey Keyworth, Don Kudo (Engineering Department); Paul Kraehling (Planning Department).
- *County of Wellington*: Gord Ough (County Engineer).
- *Consultant Team*: Phil Grubb, Jim Mallett, Bill O'Brien (Paradigm Transportation Solutions Limited); Ernst Heinrichs, Stewart Elkins (Totten Sims Hubicki Associates); Glenn Scheels (GSP Group).

Throughout the study, the Project Team obtained input and comments from other City and County departments including the City and County Planning Departments, Guelph Transit Services, Parks Department and Traffic Services Division.

At key points in the study, the Project Team shared information and findings with the Ministry of Transportation (Southwest Region) and the Regional Municipality of Waterloo.

1.3.5 The Public Consultation Process

The study commencement was advertised in the *Guelph Tribune*, the City's web page and by letters to residents' organizations, stakeholder groups, institutions and business associations. An initial workshop with members of City and County Councils and senior staff was held on April 22, 2004, to obtain input on study scope and identify priorities. A similar workshop open to the public was held on May 4, 2004. The workshop was well attended and input was obtained through facilitated group discussions and through questionnaire responses. A second public presentation and discussion was held on November 3, 2004, to present the findings, conclusions and proposed recommendations of the transportation study. This meeting was also well attended and the participants discussed the proposed recommendations and provided input.

The two public meetings/workshops focused on issues, alternatives and recommendations under two sets of transportation system improvements:

1) *Non-Structural Improvement Alternatives:* Involving increased walking and cycling, increased transit use, mixed and higher density land use, increased ridesharing and TDM strategies involving transit fare strategies, parking supply and price management, congestion pricing, etc.
2) *Structural Improvement Alternatives:* Such as provincial highway improvements, pedestrian bicycle routes and facilities, preferential transit facilities and increased capacity on City and County roadways.

The draft final report and recommendations of the study were made available for public review and comment in March 2005. The study conclusions and recommendations were also presented at a public meeting on March 23, 2005, and at a joint meeting of the City's Planning, Environment and Transportation Committee and the County's Roads Committee on March 30, 2005. The final study report and the Transportation Master Plan were presented to County and City Councils on June 30 and July 18, 2005, respectively. Accounts of the public meetings and summaries of public comments are included in the Consultation Appendix to this report.