



Clair-Maltby
Transform. Connect. Community.

Mobility Study Work Plan

Prepared by:
BA Group



Memorandum

TO:
Clair-Maltby SP Working Team

FROM:
Paul M. Sarjeant, M.A.Sc,
P.Eng.

PROJECT:
5976-06
Clair-Maltby SP – Mobility Study

DATE:
June 15, 2017

SUBJECT: MOBILITY STUDY WORK PLAN

The following tasks represent BA Group's proposed scope of work for the Clair-Maltby SP Mobility Study, particularly Phase 1. This has been updated based on our meetings with staff on April 10th and May 18th, as well comments received at and after the TAG meeting on the evening of May 18th.

Phase 1

1.1 Review Available Background Studies

A review is underway of the relevant existing background planning and transportation studies and reports. These include the documents listed in the Terms of Reference, as well as any other documents that may be determined to be relevant as the study commences. For example, a review of existing City of Guelph road standards will be included, with a view to identifying options for dealing with multi-modal transportation needs. Table 1 (below) lists the background studies that have been identified to date as being relevant to this work.

1.2 Review Available Data

Available traffic data in the vicinity of the Clair-Maltby Secondary Plan area in the southern part of Guelph will be obtained and reviewed. This will include data related to important traffic links that may lie farther afield. The data will include road network utilization counts (traffic counts), traffic accident data, data from the most recent (2011) Transportation Tomorrow Survey (TTS), and any other relevant data sources identified as the study commences.

Additional data collection (traffic counts) will be undertaken as necessary to fill any gaps in the record. BA Group will also review the proposed growth forecasts (population and employment) for the Clair-Maltby area, and ensure we have the planning information (anticipated uses, intensity, built form, and so on) that we will need to feed into the traffic analysis in Phase 2.

TABLE 1 STATUS OF BACKGROUND REPORTS – CLAIR – MALTBY SECONDARY PLAN

Document	Year	Status (Obtained)	Comments
<i>City of Guelph Official Plan</i>	2014 Consol'n	✓	Reviewed
<i>Official Plan Amendment 48</i>	OPA 48	✓	Reviewed
<i>Guelph-Wellington Transportation Study (TMP)</i>	2005	✓	Reviewed
<i>Transit Growth Strategy and Plan</i>	2012	✓	2010 version has been obtained for review. The 2012 update was not adopted by council
<i>Bus Route Planning Study</i>	2016-2017		Currently underway. This study (if available) will provide the most relevant and up to date transit information.
<i>Cycling Master Plan – Bicycle-Friendly Guelph</i>	2012	✓	Reviewed
<i>Active Transportation Network Study</i>	In Progress	✓	The most current draft of this report has been obtained and reviewed.
<i>Guelph Trails Master Plan</i>	2005, 2016 update	2005	OPA 48 reviewed as representing the most recent information
<i>Wellington County Active Transportation Plan</i>	2012	✓	Reviewed
<i>South Gordon Community Plan</i>	1999	✓	2003 Update of 1999 Document Obtained
<i>Gordon Street Wellington Road 46 Class Environmental Assessment</i>	2000	✓	Reviewed
<i>Victoria Road (Clair Road to York Road) Class EA Study</i>	2005	✓	Reviewed
<i>Clair Road EA Study</i>	2003	✓	Reviewed
Various traffic impact studies for adjacent developments	Various		The following TIS studies have been identified as being relevant, and are being obtained: <ul style="list-style-type: none"> • 1888 Gordon • Poppy / Clair • NE corner of Gordon / Clair (comm) • SE corner of Gordon / Clair (res) • NW corner of Victoria / Clair (comm) • Southgate Business Park • Highland Creek Business Park
<i>South Guelph Secondary Plan</i>	1999		
<i>City of Guelph Engineering Design Manual</i>			Provided by staff.



Note that some preliminary analysis of the traffic data may be conducted in Phase 1 so as to identify or clarify existing issues, problems, and constraints with a view to informing the Community Visioning Exercise that will take place at the beginning of Phase 2.

1.3 Review City of Guelph Travel Demand Forecasting Model

The capabilities of the City of Guelph Travel Demand Forecasting Model are documented in a background report that details the underlying assumptions and parameters that have been used. BA Group will review this documentation during Phase 1 so as to inform planning of the traffic analysis work to be undertaken in Phase 2.

At this point, after discussion with staff, it is anticipated that BA Group will not directly run the City's model, but will formulate one or more request from Guelph forecast modelling staff for future forecast background data to be used in our Phase 2 traffic analysis.

Staff have identified the desire to coordinate the Clair-Maltby study work with the anticipated release this year of the 2016 Transportation Tomorrow Survey (TTS) data, and subsequent update of the City of Guelph forecast model. If the TTS data is released in the spring or summer of this year, then this will likely be achievable.

1.4 Preparation of Phase 1 Background Report

A Phase 1 Background Report will be prepared that summarizes the findings of the Phase 1 work, including (but not limited to):

- documentation of the existing and currently planned transportation network in the Clair Maltby Secondary Plan area,
- existing conditions with respect to travel patterns and transportation network conditions,
- a summary of challenges and opportunities identified in the background study review,
- a summary of the transportation planning policy context with respect to community design objectives, active transportation objectives, transit objectives, and road design standards,
- a technical overview work plan of the Phase 2 analysis work.

The work plan will identify the scope of the Phase 2 technical analysis work, as well as the process to be used for multi-modal transportation forecasting so as to account for transit and active transportation. Areas where additional data and information are required will be identified, particularly with respect to active transportation.



1.5 Meetings

The following meetings were anticipated in our proposal. It is anticipated that much of the report preparation and review work can be coordinated by email and by conference call as necessary.

Type	Subject	Number of Attending Staff
City Project Team	Startup (April 10, 2017)	2
TAG / TSC	Phase 1 Report Review	2

1.6 Timing and Delivery

It is anticipated that the review of background information will be completed, and that a Draft Phase 1 report will be submitted by the end of May.

Phase 2

2.1 Community Visioning Exercise

Information from the Phase 1 Background Report will be provided to the Community Visioning exercise so as to assist in informing and directing this process. Key inputs to this exercise will include an overview of the existing and planned transportation network (including roads, transit, and active transportation infrastructure), the identification of existing transportation network constraints (related to natural features and/or capacity), and the existing road standards that are available to address multi-modal mobility objectives. The Conceptual Community Structure that will result from the Community Visioning exercise will provide the basis for the development of up to three (3) alternatives. These alternatives will be the basis for the subsequent transportation planning and analysis work to be undertaken in Phase 2.

2.2 Proposed Road Network

Using input from the CEIS as well as the parallel MESP studies, the constraints to developing the internal (collector) road network will be identified and documented. As many as three (3) alternative conceptual networks will be developed that will address these constraints, minimizing impacts where natural barriers cannot be avoided, and will provide an appropriate level of service in support of the Conceptual Community Structure alternatives. A key priority will be prioritizing the needs of active transportation and transit users so as to create a transportation network that promotes these alternative modes.

2.3 Junctions

A qualitative assessment of the intersections within and around the conceptual community will be undertaken with a view to ensuring that the following are provided for:



- a. adequate vehicular capacity,
- b. appropriate and safe active transportation features and facilities; and,
- c. transit priority where feasible.

This assessment will include a review of the potential for the implementation of roundabouts within the community or on the roads adjacent to the community. This pragmatic review will take into account the needs of all users, particularly transit and emergency vehicles, cyclists, and pedestrians.

2.4 Main Street Concept

Close attention will be paid to any special designations that may come out of the Community Visioning Exercise. These might include such concepts as a Main Street designation, a Transit Spine designation, a Natural Feature Spine, or an overall transit orientation for the community. Special road and intersection treatments (such as pavement markings, modified setbacks and sight triangles, priority trail crossings, or enhanced transit lay-bys) will be identified that will support such features.

2.5 School Zones

Special consideration will be given to road elements and features in the vicinity of schools so as to ensure that the needs of pedestrians are prioritized. Traffic calming measures may be considered as deemed necessary. Standards for passenger pick up and drop off amenities will be reviewed, as well junction and mid-block crossing designs.

2.6 Parking

A review of City of Guelph parking standards will be undertaken, and a parking plan developed for the community. This will detail how on street and off street parking is to be provided, particularly in circumstances where interaction with cycling lanes occurs, or where a denser urban form potentially reduces the opportunity for driveway parking.

2.7 Recreational Trails

The community transportation network concept will include a trail concept plan. This will be developed in concert with the CEIS work so as to ensure that the trail system does not impinge on Natural Heritage Features. The system will be developed with a view to connecting with, expanding and enhancing the active transportation elements in the road rights-of-way. Off road trail standards will be designated so as to meet appropriate standards (AODA and FADM), and will be developed in conjunction with the parallel MESP studies so as to ensure that environmental and storm water considerations are dealt with.



2.8 Network Concept Plans

Plans will be developed to illustrate the alternative conceptual internal community road networks, and their connectivity with external transportation elements, adjacent neighborhoods and communities, and existing and proposed community services (such as recreational facilities and schools). All modal elements of the networks will be addressed in these plans, namely roadways, transit routing and nodes, cycling routes and trails, and pedestrian facilities.

The plans will identify where crossings are required through natural heritage areas. Using inputs from the CEIS study team, the relative impacts of the crossings required in each alternative plan will be assessed.

2.9 Technical Traffic Analysis

On the basis of the alternative conceptual community transportation networks, and in consultation with City staff, a Traffic Impact Study (TIS) will be undertaken. This work will be undertaken in conformity with the City of Guelph's "Traffic Impact Study Guidelines", and will comprise a standard four-step analysis (trip generation, distribution, mode choice, and assignment). The scope and horizon years for this work will be developed in coordination with City staff. A key part of this work will entail data collection. Traffic counts will be undertaken as required so as to fill gaps in the available data.

Once the scope and horizon years for this work are established, sub-area analyses will be conducted so as to provide existing and future trip information in the study area information from the City's VISUM travel demand model. This data will be used to provide the background traffic information for the TIS. Trip generation rates will be based on the ITE Trip Generation Manual, as well as BA Group's proprietary trip generation data resources, and agreed upon with City staff. Directional distribution information will be extracted from the Transportation Tomorrow Survey (either the 2011 TTS or the 2016 TTS if it becomes available in time for this work), and checked against information in the City's travel demand model.

Modal Split assumptions for Clair-Maltby will be established using City of Guelph targets for transit and active transportation modes as a starting point. These target rates will be reviewed and adjusted as necessary to ensure that pragmatic and achievable non-automobile mode shares are assumed for this new community. This review will include an assessment of walking distances to transit within the community based on the alternative road networks under review.

Traffic Assignment will be conducted using a suite of proprietary software tools developed by BA Consulting Group. Intersection analysis will be conducted using either InterCalc Canadian Capacity Guide software, or the latest version of Synchro. It is not anticipated that any traffic simulation work will be required for this study, but BA Group has the tools to do this available should they become necessary.

The results of this work will be used to compile a specific set of recommendations with respect to road widenings, intersection control (signalized or unsignalized), intersection turn lane configurations, and roundabout configurations (if appropriate). It will also provide a technical basis for the comparison of the alternative conceptual road networks under consideration.

2.10 Noise Study

A noise study will be conducted, if deemed necessary in consultation with City staff, on the basis of the results of the TIS. This will be conducted on the perimeter roads of the Secondary Plan Area where arterial road noise may be an issue, as well as to address any other point or corridor noise source that might be identified during the study.

2.11 Consultation With City of Guelph Staff

In addition to the various consultation activities described above, BA Group will consult with City of Guelph staff in the following specific departments to ensure that City objectives are addressed as the community transportation network plan is developed:

- Traffic Demand Management (TDM), to ensure that measures to promote transit and active transportation are implemented by way of the transportation amenities provided, as well as the built form of the community.
- Parks and Recreation, to ensure that multi-modal choices are provided to move within the community and access key recreational destinations.
- Transit, to discuss Guelph Transit service and routing standards, specific transit related issues and objectives in this area of Guelph, and to ensure that optimal routing is provided through and around this community. If the Community Conceptual Structure includes a Transit Spine corridor, then these discussions will become invaluable in understanding the desired features of the corridor.

2.12 Public Consultation and Deliverables

As noted above, the Mobility Study work described herein is intended to meet the requirements of a Transportation Master Plan (Phase 1 and 2) study under the Municipal Engineers Association Class EA process. As such, there must be at least two opportunities (Public Information Centres or PIC's) to present findings and solicit input from the public with respect to this work. These opportunities will be coordinated with the public consultation sessions for the parallel MESP and Secondary Plan studies.

At the end of phase 2, work described above (from both phase 1 and phase 2) will have been pulled together in a single draft report that will address the requirements for a Transportation Master Plan Study. As such it will document the following:

- A problem and opportunity statement
- The existing transportation network and conditions, and the currently planned improvements.
- The planning context for the Clair-Maltby Secondary Plan area, including the Community Conceptual Plan.
- The alternative Conceptual Transportation Networks (up to three), and the evaluation of these alternatives on the basis of criteria provided in the Terms of Reference document (page 7) plus any additional criteria identified during the course of the study.
- The recommended standards to be used as they relate to meeting community objectives. These will include road and intersection design standards and drawings, pedestrian and cycling facility standards, transit facilities, and traffic calming measures where deemed appropriate.
- The Traffic Impact Study work, including the results and recommendations for improvements and new construction, and the results of the noise assessment.
- The EA studies that will be required to move forward with the Secondary Plan for this area.

Material from this report, as well as the parallel MESP studies will provide the basis for the Design Charrette to be held at the end of Phase 2.

Phase 3

3.1 Finalize Phase 2 Study

Once all of the MESP study work is completed, and the Preferred Community Structure alternative has been determined (by means of the Design Charrette at the end of phase 2), the Mobility Study report will be updated to reflect the selection of the preferred alternative transportation network.

3.2 Additional Refinement in Support of Secondary Plan Development

As development of the Secondary Plan proceeds, any additional transportation network or policy related items that are found to be required will be dealt with and added to the Mobility Study as might be necessary to reflect the details of the Secondary Plan. This will include, for example, the development of a staging and sequencing strategy for the preferred community road network.

3.3 Deliverables

At the end of the phase 3 work, the final Mobility Study will be prepared and submitted to the City of Guelph. This report will include all of the required material in a single report (plus appendices) which together will comprise the Mobility Study for Clair-Maltby Secondary Plan area , and as such will meet the requirements of a Phase 1 and 2 Transportation Master Plan study under the Municipal Engineers Association Class EA process.



Comment	Response	Work Plan to be Revised (yes/no)																																																
TAG Member (H. W.), May 25, 2017																																																		
Mobility Study																																																		
<p>1. The location and design of roads should take into account the presence of any identified cultural heritage landscapes. The Ministry of Transportation Environmental Guide for Built Heritage and Cultural Heritage Landscapes is a useful resource.</p>	<p>The location of roads will take into account, and appropriately weight, all constraints identified during the study process, including those related to cultural heritage landscapes.</p>	<p>No change to Mobility Work Plan</p>																																																
<p>2. The projections of future traffic should take into account evidence of changing trends in travel such as the example of truck crossings of the Ontario/(Michigan- New York) border.</p>	<p>Future traffic projections will be based upon output from the City of Guelph travel forecast model, and as such will reflect changes in travel trends that directly impact travel in and around Guelph within the planning horizon of this study. These trends are generally unrelated and uninfluenced by the trends that drive cross border commercial traffic.</p>	<p>No change to Mobility Work Plan</p>																																																
<div> <p>Annual Total Truck Crossings Ontario/Michigan&New York</p> <table border="1"> <caption>Estimated Annual Total Truck Crossings</caption> <thead> <tr> <th>Year</th> <th>Annual Truck Traffic</th> </tr> </thead> <tbody> <tr><td>1995</td><td>3,500,000</td></tr> <tr><td>1996</td><td>3,800,000</td></tr> <tr><td>1997</td><td>4,100,000</td></tr> <tr><td>1998</td><td>4,400,000</td></tr> <tr><td>1999</td><td>4,600,000</td></tr> <tr><td>2000</td><td>4,700,000</td></tr> <tr><td>2001</td><td>4,600,000</td></tr> <tr><td>2002</td><td>4,500,000</td></tr> <tr><td>2003</td><td>4,600,000</td></tr> <tr><td>2004</td><td>4,700,000</td></tr> <tr><td>2005</td><td>4,800,000</td></tr> <tr><td>2006</td><td>4,700,000</td></tr> <tr><td>2007</td><td>4,600,000</td></tr> <tr><td>2008</td><td>4,400,000</td></tr> <tr><td>2009</td><td>3,200,000</td></tr> <tr><td>2010</td><td>3,400,000</td></tr> <tr><td>2011</td><td>3,500,000</td></tr> <tr><td>2012</td><td>3,600,000</td></tr> <tr><td>2013</td><td>3,700,000</td></tr> <tr><td>2014</td><td>3,800,000</td></tr> <tr><td>2015</td><td>3,900,000</td></tr> <tr><td>2016</td><td>4,000,000</td></tr> <tr><td>2017</td><td>4,100,000</td></tr> </tbody> </table> </div>			Year	Annual Truck Traffic	1995	3,500,000	1996	3,800,000	1997	4,100,000	1998	4,400,000	1999	4,600,000	2000	4,700,000	2001	4,600,000	2002	4,500,000	2003	4,600,000	2004	4,700,000	2005	4,800,000	2006	4,700,000	2007	4,600,000	2008	4,400,000	2009	3,200,000	2010	3,400,000	2011	3,500,000	2012	3,600,000	2013	3,700,000	2014	3,800,000	2015	3,900,000	2016	4,000,000	2017	4,100,000
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