



**Transportation Department**

**TO: Community Development Committee**

**SUBJECT: Waterdown Road, Plains Road to Masonry Court  
Environmental Assessment**

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Report Number: TS-27-12

File Number(s): 750-01

Report Date: September 21, 2012

Ward(s) Affected: 1  2  3  4  5  6  All

Date to Committee: October 1, 2012

Date to Council: October 15, 2012

**Recommendation:** Approve the draft Environmental Study Report (ESR) dated October, 2012 by Delcan Corporation documenting the completion of the Class Environmental Assessment for the widening of Waterdown Road between Plains Road and Masonry Court for finalization and public posting; and

Consider for inclusion an additional \$2.75 million in 2013 as part of the 2013 proposed capital budget and forecast to accommodate land acquisition costs associated with the Waterdown Road widening as per report TS-27-12.

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**Purpose:**

- Address goal, action or initiative in strategic plan
- Establish new or revised policy or service standard
- Respond to legislation
- Respond to staff direction
- Address other area of responsibility

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**Reference to Strategic Plan:**

Managed Growth

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**Background:**

Waterdown Road has always been considered a gateway into Burlington and the recently completed Waterdown Road/Highway 403 interchange has emphasized the corridor's importance as one of the city's principal gateways. Growth within the City of Burlington has resulted in increased traffic congestion along Waterdown Road between Highway 403 and Plains Road particularly during peak periods of the day. The expansion of service to the Aldershot GO station, the anticipated development in the Village of Waterdown as well as potential development of the lands between Howard Road and Waterdown Road to the

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west of the study area will serve to further increase the volume of traffic along Waterdown Road.

The City of Burlington's Cycling Master Plan, as approved by City Council in 2009, identifies Waterdown Road from the escarpment to Plains Road as a part of its overall long term cycling network. As such, on road bike lanes are identified as being required throughout the entire length of Waterdown Road.

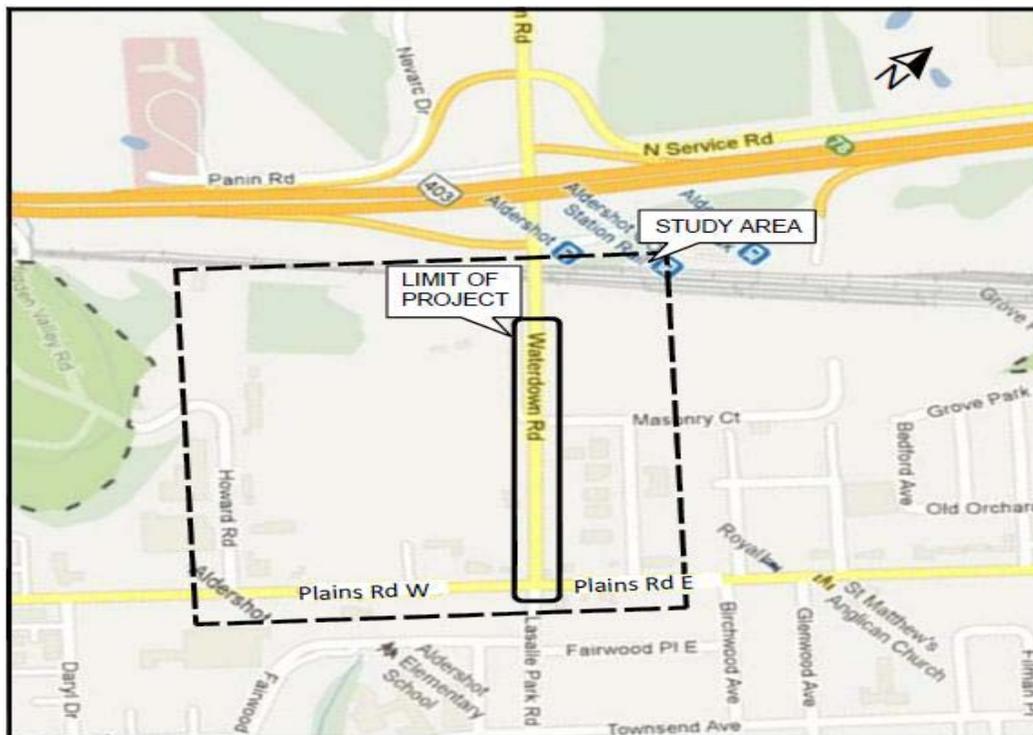
The predominant land uses within the study area consist of residential as well as institutional (fire hall) and commercial uses.

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## Discussion:

Waterdown Road is classified as a minor arterial roadway in the City of Burlington's Official Plan and extends from the Niagara Escarpment in the north to Plains Road to the south. The "project limits" for this Environmental Assessment (EA) Study extend from Plains Road north to Masonry Court (immediately south of Highway 403), a length of approximately 350 metres. The "study area" is bound by Howard Road to the west, Cooke Boulevard to the east, Plains Road to the south and Highway 403 to the north. Figure 1 illustrates both the project limits and the study area.

**Figure 1- Study Area and Project Limits**



In July 2011, Delcan Corporation was retained by the City of Burlington to undertake a Class Environmental Assessment Study in accordance with the requirements of the Municipal Class Environmental Assessment (October 2000, as amended 2007), Schedule 'C' for Waterdown Road. This Environmental Study Report documents the

background to the study, existing and future conditions within the study area, the need and justification for the project, the planning, design and consultation process leading to the preferred alternative, anticipated positive and negative impacts, and proposed mitigation.

### Existing and Future Conditions

A transportation needs assessment was undertaken for the Waterdown Road corridor as part of this Class EA. The assessment of transportation needs and opportunities is focussed on the accessibility and mobility along the study corridor under existing and future conditions.

Based on the traffic volumes anticipated by 2031, it was determined that the signalized intersection at Waterdown Road and Masonry Court is expected to continue to operate at acceptable levels of service during both peak periods of the day. The signalized intersection at Waterdown Road and Plains Road, which is currently experiencing delays in the existing weekday AM and PM peak hours, is expected to break-down during those same time periods.

### Problem and Opportunity

In accordance with the Municipal Class EA process, the specific problem or opportunity being addressed must be identified and described in the form of a clear statement. From this "Problem Statement", the project is developed. The Problem Statement is therefore the fundamental starting/reference point of any Class EA Study upon which the entire project is based and scope of the project is determined.

The Purpose of the EA Study is to:

- Address existing/future capacity deficiencies
- Consider the effects of all aspects of the environment and evaluation of alternatives
- Develop preliminary preferred design(s) of recommended alternative(s)
- Review opportunities for:
  - improved transit services
  - improved pedestrian and bicycle facilities
  - improved intersection operations
  - streetscaping/landscaping

Following the identification of these issues and opportunities, the study problem was developed as follows:

**“As presently configured, Waterdown Road will not be able to accommodate the travel demand growth anticipated by 2031.”**

The Study Problem Statement was reviewed throughout the duration of the study to ensure that all major issues that are within the general scope of this EA study have been identified and addressed.

### Evaluation of Alternative Planning Solutions

Seven alternatives for the Waterdown Road Class EA were identified and evaluated as indicated in Table 1:

**Table 1 - Alternative Solutions**

	<b>Alternative</b>	<b>Description</b>
1	Do nothing	The existing transportation system is not changed
2	Limit development	Restrict development of the surrounding land now and in the future
3	Travel demand management measures	Introduce travel demand management measures (such as carpooling, etc).
4	Accommodate other travel modes	Accommodate other modes of travel (e.g. transit, cycling, walking)
5	Intersection improvements	Improve traffic signal timing and/or add through and turn lanes at existing and proposed intersections
6	Improve adjacent roads	Widen adjacent north-south road networks
7	Provide additional traffic lanes	Provide additional capacity along Waterdown Road with additional lanes

Based on the evaluation of the alternative solutions and with input from the Technical Advisory Committee (TAC) and Stakeholder Advisory Group (SAG), a combination of the following alternatives was recommended:

- Alt. 3. Travel demand management measures
- Alt. 4. Accommodate other modes of travel (e.g. transit, cycling, walking)
- Alt. 5. Improve traffic signal timing and/or adding turn lanes at existing and proposed intersections
- Alt. 7. Provide additional through capacity along Waterdown Road.

Evaluation Criteria

A number of analyses were conducted in order to help in the detailed evaluation of the identified alternatives. These included an assessment of the natural environment, a noise assessment, cultural and built heritage assessment and a stage 1 archaeological assessment.

The evaluation of alternatives was undertaken using the criteria in Table 2:

**Table 2 – Evaluation Criteria**

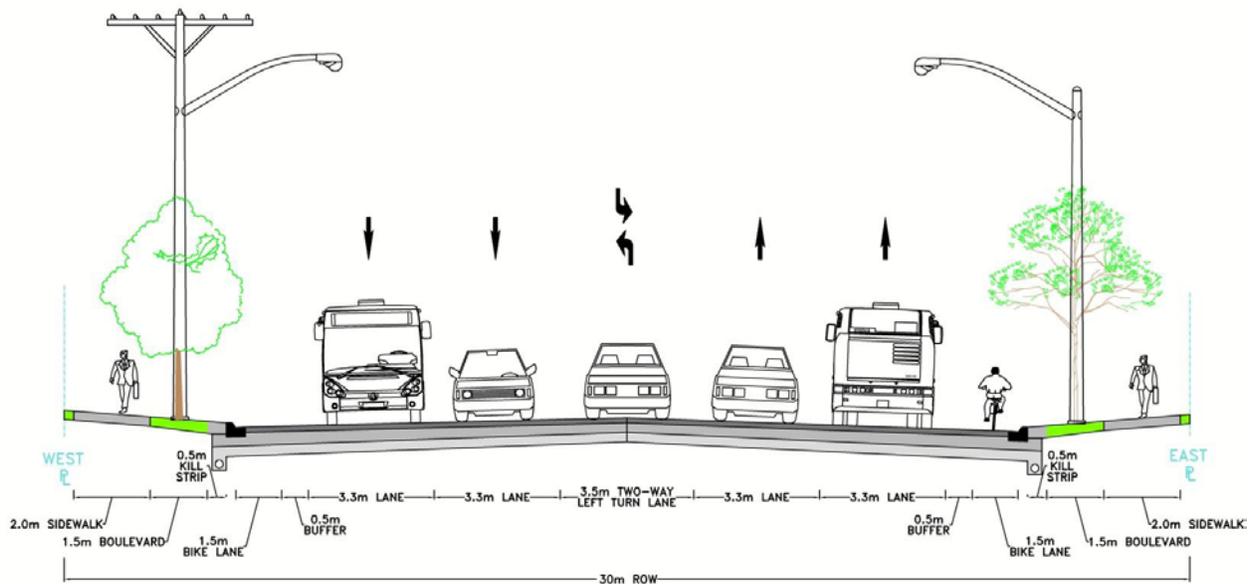
<b>Transportation/Technical</b>	<b>Socio-Economic Environment</b>
<ul style="list-style-type: none"> <li>• Planning Objectives</li> <li>• Transit Services</li> <li>• Overall Safety</li> <li>• Traffic Infiltration</li> <li>• Network Capacity and Level of Service</li> <li>• Stormwater Management</li> </ul>	<ul style="list-style-type: none"> <li>• Residential/Business Access</li> <li>• Property Requirements</li> <li>• Emergency Response</li> <li>• Noise</li> <li>• Air Quality</li> <li>• Aesthetics/Streetscapes</li> </ul>
<b>Natural Environment</b>	<b>Cultural Environment</b>
<ul style="list-style-type: none"> <li>• Terrestrial/Vegetation</li> <li>• Aquatic/Watercourse</li> </ul>	<ul style="list-style-type: none"> <li>• Archaeological Resources/Cultural and Built Heritage</li> </ul>
<b>Cost</b>	
<ul style="list-style-type: none"> <li>• Capital Cost</li> </ul>	

Additional instruction was received from City of Burlington staff which included:

- Minimize construction costs
- Maximize traffic operations and safety
- 30m ROW width (Official Plan)
- minimum 1.5m Bike Lanes
- consider all road users in the design to create a “Complete Street”
- Minimize impacts to:
  - Residential Properties
  - Natural Environment
  - Built Heritage Sites

Based on the evaluation of the alternative design concept components, as well as consultation with the public, TAC and SAG, the preferred design concept is shown in Figure 2.

Figure 2 – Preferred Design Concept



The following are the key aspects of the preliminary design:

The proposed centreline alignment of Waterdown Road generally follows the existing centerline alignment with widening of the right of way (ROW) impacting both the east and west properties equally. Cross section elements include:

- concrete curb and gutter;
- four 3.30 m through lanes;
- 3.50m two way centre left turn lane;
- 3.50m left turn lanes at Plains Road and Masonry Court;
- 1.50m bike lanes with a 0.5m buffer
- 0.50m “salt kill” strips if desired;
- 1.50m boulevards, and
- 2.00m concrete sidewalks.

### Mitigation Measures and Next Steps

In order for the preferred design to proceed to construction, the property required to widen the ROW will need to be purchased.

The cost for property acquisition is estimated to be \$4.94M. This has increased from the original land cost estimate of \$2.19M which was based on a design undertaken in the 1990’s when the concept of “Complete Streets” was not as prevalent as it is today.

Complete Streets is “the design and operation of the entire roadway right of way with **all users** in mind - including cyclists, public transit vehicles and riders, and pedestrians of all ages and abilities”. This “complete streets” concept aligns with Council’s strategic plan to “Increase the number of people who cycle, walk and use public transit for recreation and transportation”

The increase in right of way width and in property costs can generally be attributed to the following factors:

- Accommodation of all users (cyclists, transit riders, pedestrians)
- Greater separation between vulnerable road users and vehicular traffic
- Better alignment at the Plains Road/Waterdown Road/LaSalle Park Road intersection.

A number of properties on Waterdown Road are required to be purchased outright. Remnant parcels could be retained by the existing owner(s) once the land requirements for the road widening are taken and any buildings demolished. Alternatively, the remaining properties could be placed for sale on the open market.

Approximately 20 trees have been identified as requiring removal and shall be replaced by the City of Burlington according to the City’s tree replacement policy. Additionally, noise and air quality impacts should be mitigated during construction of the preferred design.

### **Strategy/Process**

The process as prescribed by the Municipal Engineers Association (MEA) “Municipal Class Environmental Assessment,” 2007 has been followed through this study.

### **Public Consultation**

Throughout the study process, members of the public were informed of the study through newspaper notices Notice of Study Commencement, Notice of Public Information Centres (PIC’s), mailings, and two PICs. The purpose of the PICs was to obtain public input after reviewing the problem being addressed, background information, the alternative solutions being considered, and identifying a preliminary preferred alternative solution. Feedback received from these PICs was used in evaluating the alternatives and determining the preferred solution and preferred design concept.

Prior to each Public Information Centre, TAC and SAG meetings were held to obtain input on the work completed to date. Input received from the TAC and SAG members was used in evaluating the alternatives and determining the preferred solution and preferred design concept.

In addition, the project team met with the Plains Road Village Vision group (PRVV) and the Aldershot Coordinating Group in order to facilitate the discussion between the various groups with common or overlapping interest in both the Waterdown Road and

Plains Road corridors. The work carried out during this EA took into account the ongoing findings of the Plains Road Functional Design Study.

### Options Considered

As prescribed by the MEA's Class Environmental Assessment process, alternative options were examined using the evaluation criteria as described in the discussion section of this report.

### Financial Matters:

The following table indicates the change in the project cost as a result of increased land acquisition costs, as described above. The estimated increase for land is \$2.75 million.

Land Acquisition	\$2.19	\$4.94
Construction	\$2.00	\$2.00
<b>Total</b>	<b>\$4.19 million</b>	<b>\$6.94 million</b>

*All values in millions (rounded)*

Due to the increase in land acquisition costs, this report recommends for inclusion an additional \$2.75 million in the 2013 proposed capital budget and forecast in the year 2013 in order for project completion (previously the 2012 capital budget forecast included \$1.25 million in 2013 for land costs). If the funding is approved by council through the 2013 capital budget process, all the funding required for land acquisition (a total of \$4.94 million, including prior approved funding) will be in place in order to commence negotiations with affected property owners. The \$2 million required for utility relocation and construction is budgeted in 2014 and 2015 respectively in the 2013 proposed capital budget and forecast.

The critical path for this project is land acquisition, therefore if all of the land can be acquired in 2013, and utility relocations completed in 2014, construction can begin in 2015. If difficulties arise in the land acquisition phase, construction may be further delayed.

### Source of Funding

Funding for the widening of Waterdown Road is proposed as follows in the 2013 proposed capital budget and forecast;

Land Acquisition		
Transportation Development Charges	\$4,000,000	Land Acquisition* (2013)
Transportation Development Charges	\$1,840,000	Utility Relocation (2014) & Construction (2015)
Tax Supported Debt	\$160,000	

\* Note, prior approved fund exists for the land acquisition component of \$942,500 (RA0161 – Transportation Development Charges). With the total amount proposed to be budgeted in 2013, of \$4 million, estimated costs for land acquisition can be met.

**Environmental Matters:**

Throughout the Environmental Assessment process, all of the various alternatives have been carefully evaluated against potential environmental impact in addition to matters of public safety and cost.

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**Communication Matters:**

Two Public Information Centres have been held for this EA study along with advertisements notifying the public of the EA commencement. Study completion notices will be sent following approval of this report by City Council. A notice of this report was circulated to all affected Waterdown Road property owners along with an explanation of the appeal mechanism stipulated by the Class Environmental Assessment process. This report will be available on the City’s website and hard copies will also be distributed upon request.

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**Conclusion:**

Staff recommend that Committee approve the draft Environmental Study Report dated October, 2012 as prepared by Delcan Corporation for finalization and public posting for a period of 30 days. Staff also recommend that Committee consider for inclusion an additional \$2.75M in the 2013 proposed capital budget and forecast in year 2013 to accommodate the Waterdown Road widening as per Report TS-27-12.

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Respectfully submitted,

Vito Tolone  
Senior Transportation Planner  
Ext 7800

**Appendices:**

A.
B.

**Notifications:**  
(after Council decision)

Name	Mailing or E-mail Address
Waterdown Road property owners	

**Approvals:**

\*required

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\*Department

\_\_\_\_\_  
City Treasurer

\_\_\_\_\_  
General Manager

\_\_\_\_\_  
City Manager

	To be completed by the Clerks Department
Committee Disposition & Comments	
	01-Approved 02-Not Approved 03-Amended 04-Referred 06-Received & Filed 07-Withdrawn
Council Disposition & Comments	
	01-Approved 02-Not Approved 03-Amended 04-Referred 06-Received & Filed 07-Withdrawn