1. DECLARATIONS OF PECUNIARY INTEREST UNDER THE MUNICIPAL
   CONFLICT OF INTEREST ACT

2. DELEGATIONS
   a) Alla Dinerman, Jeff Warren, MMM Group and Robert Bakalarczyk, Susan Wagter, MTO re: New Highway 7 Kitchener to Guelph
   b) Mike Morrice, Executive Director, Sustainable Waterloo re: Yearend Report (Environmental Actions)
   c) Ahmad Zeitoun re: Policy Request for Smoking Around Buses

3. REPORTS – TRANSPORTATION AND ENVIRONMENTAL SERVICES

   RAPID TRANSIT
   a) E-11-044, Preliminary Preferred Rapid Transit Implementation Option (This report is attached separately) – (staff presentation)

   ADMINISTRATION
   b) E-11-006, Consultant Selection – Transportation and Environmental Services Departmental Asset Management Implementation Project (staff presentation)
   c) Overview of Major Issues and Priorities (Water, Wastewater and Waste Management) (staff presentation)

   DESIGN AND CONSTRUCTION
   d) E-11-024, Frederick Street Improvements, Lancaster Street to River Road, City of Kitchener – Approval of Project
   e) E-11-028, Traffic Management for 2011 Road Construction Contracts
   f) University Avenue Improvements, Lincoln Road to Weber Street – Public Consultation Centre – Information Package

   TRANSPORTATION
   g) CR-RS-11-017, Closing and Surplus Declaration of Part of Northfield Drive East (Regional Road 22), Township of Woolwich
   h) E-11-033/CR-RS-11-021, Region of Waterloo International Airport – Land Development and Fees and Charges Update
PW Agenda - 2 - April 12, 2011

i) CR-RS-11-022/E-11-042, Region of Waterloo International Airport – Declaration of Surplus and Lease with Dynasty Air Flight Services ULC

j) E-11-016, Reserved Cycling Lanes, Fischer-Hallman Road (Regional Road 58) Between Victoria Street (Regional Road 55) and Queen’s Boulevard, City of Kitchener

INTER-DEPARTMENTAL REPORTS

k) E-11-043/P-11-041, 2011 Water and Wastewater Monitoring Report

REPORTS – PLANNING, HOUSING AND COMMUNITY SERVICES

COMMUNITY PLANNING


m) P-11-035, Allocation of Environmental Stewardship Fund for 2011

n) P-11-038/F-11-018/CR-RS-11-023, Brownfields Financial Incentive Program: Tax Increment Grant Program Application – 130 and 170 Water Street North, City of Cambridge (Waterscape)

TRANSPORTATION PLANNING

o) P-11-036, Amendment to Regional Municipality of Waterloo Controlled Access By-Law #58-87 for a Temporary Access to Regional Road #28 (Homer Watson Blvd.), City of Kitchener

4. INFORMATION/CORRESPONDENCE

a) Memo re: Hespeler Road/Canadian Pacific Railway Grade Separation, City of Cambridge – Project Update and Notice of Pre-Construction Public Open House

5. OTHER BUSINESS

a) Council Enquiries and Requests for Information Tracking List

6. NEXT MEETING – May 3, 2011

7. ADJOURN

8. MOTION TO GO INTO CLOSED SESSION

THAT a closed meeting of the Planning & Works, Administration & Finance and Community Services Committees be held on Tuesday, April 12, 2011 immediately following the Planning and Works Committee meeting in the Waterloo County Room in accordance with Section 239 of the Municipal Act, 2001, for the purposes of considering the following subject matters:

a) potential litigation and receiving of legal advice and opinion that is subject to solicitor-client privilege related to a matter before an administrative tribunal
b) proposed or pending acquisition of land in the City of Kitchener
c) personal matters about identifiable individuals – committee appointments
d) a matter related to personal information about identifiable individuals and labour relations

e) receiving of legal advice and opinion that is subject to solicitor-client privilege related to a contract
### MEETINGS

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Planning and Works Committee</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 3, 2011</td>
<td>9:00 A.M.</td>
<td>Planning and Works Committee</td>
<td>Council Chamber 2nd Floor, Regional Administration Building 150 Frederick Street Kitchener, Ontario</td>
</tr>
<tr>
<td>May 24, 2011</td>
<td>9:00 A.M.</td>
<td>Planning and Works Committee</td>
<td>Council Chamber 2nd Floor, Regional Administration Building 150 Frederick Street Kitchener, Ontario</td>
</tr>
<tr>
<td><strong>Transportation and Environmental Services</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 14, 2011</td>
<td>3:00 P.M.</td>
<td>Water Efficiency Advisory Committee</td>
<td>150 Frederick Street, Room 218, 2nd Floor, Regional Administration Building 150 Frederick Street Kitchener, Ontario</td>
</tr>
<tr>
<td>April 19, 2011</td>
<td>5:30 P.M. – 8:00 P.M.</td>
<td>University Avenue Improvements, Lincoln Road to Weber Street – Public Consultation Centre</td>
<td>Lincoln Heights Public School, 270 Quickfall Drive, Waterloo</td>
</tr>
<tr>
<td>May 12, 2011</td>
<td>5:30 P.M. – 8:00 P.M.</td>
<td>Westmount Road Improvements, Queens Boulevard to Highland Road, Information Package in Advance of PCC</td>
<td>Faith Lutheran Church 247 Westmount Road East Kitchener</td>
</tr>
<tr>
<td>April 30, 2011</td>
<td>9:00 A.M. – 6:00 P.M.</td>
<td>Rapid Transit Information Booth</td>
<td>Cambridge Centre 355 Hespeler Rd., Cambridge</td>
</tr>
<tr>
<td>April 30, 2011</td>
<td>6:30 A.M. – 2:00 P.M.</td>
<td>Rapid Transit Public Consultation Centre</td>
<td>Kitchener Farmers’ Market, 300 King St. E., Kitchener</td>
</tr>
<tr>
<td>May 3, 2011</td>
<td>1:30 P.M. – 8:30 P.M.</td>
<td>Rapid Transit Public Consultation Centre</td>
<td>Calvary United Church, 48 Hawkesville Rd., St. Jacobs</td>
</tr>
<tr>
<td>May 4, 2011</td>
<td>1:30 P.M. – 8:30 P.M.</td>
<td>Rapid Transit Public Consultation Centre</td>
<td>AHQ Front Lobby 150 Frederick St., Kitchener</td>
</tr>
<tr>
<td>May 4, 2011</td>
<td>3:00 P.M. – 8:00 P.M.</td>
<td>Rapid Transit Public Consultation Centre</td>
<td>McCormick Arena 500 Parkside Drive, Waterloo</td>
</tr>
<tr>
<td>May 5, 2011</td>
<td>1:30 P.M. – 8:30 P.M.</td>
<td>Rapid Transit Public Consultation Centre</td>
<td>First United Church 16 William St. W., Waterloo</td>
</tr>
<tr>
<td>May 5, 2011</td>
<td>1:30 P.M. – 8:30 P.M.</td>
<td>Rapid Transit Public Consultation Centre</td>
<td>Faith Lutheran Church, 247 Westmount Rd. E, Kitchener</td>
</tr>
<tr>
<td>May 10, 2011</td>
<td>1:30 P.M. – 8:30 P.M.</td>
<td>Rapid Transit Public Consultation Centre</td>
<td>United Kingdom Club, 35 International Village Dr., Cambridge</td>
</tr>
<tr>
<td>Date</td>
<td>Time</td>
<td>Event</td>
<td>Location</td>
</tr>
<tr>
<td>-----------------</td>
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<td>--------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>May 10, 2011</td>
<td>1:30 P.M.–8:30 P.M.</td>
<td>Rapid Transit Public Consultation Centre</td>
<td>Region of Waterloo, 150 Main Street, Cambridge</td>
</tr>
<tr>
<td>May 14, 2011</td>
<td>9:00 A.M.–6:00 P.M.</td>
<td>Rapid Transit Information Booth</td>
<td>Fairview Park Mall, 2960 Kingsway Dr., Kitchener</td>
</tr>
<tr>
<td>May 14, 2011</td>
<td>9:00 A.M.–6:00 P.M.</td>
<td>Rapid Transit Information Booth</td>
<td>Conestoga Mall, 550 King St. N., Waterloo</td>
</tr>
</tbody>
</table>
TO: Chair Jim Wideman and Members of Planning and Works Committee

DATE: April 12, 2011

FILE CODE: A02-30/PW

SUBJECT: PRELIMINARY PREFERRED RAPID TRANSIT IMPLEMENTATION OPTION

RECOMMENDATION:

For information.

SUMMARY:

The Region of Waterloo continues to pursue the development of a Rapid Transit system. Through February and March 2011, staff undertook public consultation that asked the public for their views on which rapid transit option would provide the best value to our community. Well over 1,000 people attended the public consultation centres and information booths, and over 700 submitted written comments. Of these, 78 per cent stated support for rapid transit in general and 66 per cent stated support for light rail transit (LRT) in particular. The most common comment pertained to lower costs and lower taxes while maintaining value, regardless of the preferred rapid transit technology. The most preferred LRT implementation options were option L3 (LRT from Conestoga Mall to Fairview Park Mall and adapted bus rapid transit (aBRT) from Fairview Park Mall to the Ainslie Street Transit Terminal) and option L9 (LRT from Conestoga Mall to the Ainslie Street Transit Terminal).

In evaluating the rapid transit implementation options and considering the recent public input, staff have identified that:

- Rapid transit is preferred over business-as-usual;
- An LRT system provides the best long-term environmentally and financially sustainable solution to help manage our community’s future growth and transportation needs;
- It is realistic and achievable for the Region to consider building an LRT system in affordable stages;
- The long-term vision for rapid transit should be option L9 (LRT from Conestoga Mall to the Ainslie Street Transit Terminal);
- As a Stage 1 implementation option, staff have identified option L3 (LRT from Conestoga Mall to Fairview Park Mall and aBRT from Fairview Park Mall to the Ainslie Street Transit Terminal) as the preliminary technically-preferred rapid transit implementation option;
- Option L3 is basically the same implementation option that was approved by Regional Council in June 2009. Further analysis and public input have reinforced and confirmed that original choice;
- Stage 2 would add LRT from Fairview Park Mall to the Ainslie Street Transit Terminal;
- If Council considers option L3 to be too costly, option L1 (LRT from Conestoga Mall to Ottawa Street and aBRT from Ottawa Street to the Ainslie Street Transit Terminal) has been identified as a second choice for LRT implementation because it provides some of the benefits of option L3 with lower tax impacts;
- Implementation of option L3 (or L1) needs to include increases in conventional transit service as identified in the Region Transportation Master Plan (RTMP). To ensure that both can be implemented in an affordable way, the RTMP can be staged over a longer time.
period with 40 to 65 per cent of the RTMP proposed transit service hours implemented between 2012 and 2018; and

- Rapid transit can be implemented in combination with varying amounts of additional transit service. Deferral of some parts of the RTMP would result in the RTMP plan taking 22 or 23 years to complete instead of the planned 20 years.

The three most feasible options for implementing a rapid system and phasing in the Regional Transportation Master Plan identified by staff are:

1) Option L3a – building L3 and implementing 65 per cent of the RTMP between 2012 and 2018;
2) Option L3b – building L3 and implementing 40 per cent of the RTMP between 2012 and 2018; and
3) Option L1a – building L1 and implementing 65 per cent of the RTMP between 2012 and 2018.

The following table illustrates some of the differences between the options.

### Options for LRT/RTMP Implementation

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>L3a</td>
<td>65%</td>
<td>211,000</td>
<td>2.0%*</td>
<td>$33.12*</td>
</tr>
<tr>
<td>L3b</td>
<td>40%</td>
<td>138,000</td>
<td>1.5%*</td>
<td>$24.84*</td>
</tr>
<tr>
<td>L1a</td>
<td>65%</td>
<td>211,000</td>
<td>1.5%*</td>
<td>$24.84*</td>
</tr>
</tbody>
</table>

* Annual property tax increase over seven years (2012 to 2018) assuming all costs are funded by property tax levy. Tax levy impacts may be reduced through financing options (e.g. contribution from development charges, reduction of debt charges and upload savings from the Province).

** Based on average property assessment of $225,000 ($ 2010).

Options L3b and L1a result in a 1.5 per cent annual property tax increase, or approximately $25 per year increase per average household for seven years. Option L3a results in a 2.0 per cent annual property tax increase, or approximately $33 per year increase per average household for seven years.

** Staff is proposing option L3b as the preliminary preferred rapid transit implementation option. This would result in a 1.5 per cent annual property tax increase, or about $25 increase per year for seven years for the average household. Staff believe that this option provides the best value. Construction and the benefits of LRT are maximized in Stage 1. An adequate conventional transit expansion is implemented and implementation of the RTMP is extended by three years to approximately 23 years.

Regional staff will seek public input on all three options in a number of ways over the next two months including public consultation centres, information booths, public input meetings and opportunities for on-line comments. Comments should be submitted by May 27, 2011. Staff will be submitting a report with recommendations for Council’s approval on June 15, 2011.
REPORT:

1. Background

The Region faces a major decision with respect to rapid transit. High-quality rapid transit has been identified as a crucial component in managing growth, facilitating intensification and minimizing/reducing future “urban sprawl”. The rapid transit system being considered in the Region has the multiple goals of providing transportation choice, meeting future transportation needs, and building a viable, vibrant and sustainable community.

2. Rapid Transit Implementation Options

Staff considered 11 rapid transit implementation options, as summarized in Table 1. Each of the rapid transit options would proceed in the context of the Moving Forward Transit Program, an integrated rapid transit project that combines rapid transit with the re-oriented and expanded Grand River Transit bus system as identified in the RTMP. It includes improvements ranging from integration with GO and VIA to road improvements in support of rapid transit and park 'n ride facilities.

Table 1: Rapid Transit Implementation Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Length (km)</th>
<th>BRT or aBRT</th>
<th>LRT</th>
<th>Total Rapid Transit</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td></td>
<td>22</td>
<td>14</td>
<td>36</td>
</tr>
<tr>
<td>L2</td>
<td></td>
<td>19</td>
<td>17</td>
<td>36</td>
</tr>
<tr>
<td>L3</td>
<td></td>
<td>17</td>
<td>19</td>
<td>36</td>
</tr>
<tr>
<td>L4</td>
<td></td>
<td>12</td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>L5</td>
<td></td>
<td>22</td>
<td>12</td>
<td>34</td>
</tr>
<tr>
<td>L6</td>
<td></td>
<td>19</td>
<td>15</td>
<td>34</td>
</tr>
<tr>
<td>L7</td>
<td></td>
<td>17</td>
<td>17</td>
<td>34</td>
</tr>
<tr>
<td>L8</td>
<td></td>
<td>12</td>
<td>22</td>
<td>34</td>
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<td>L9</td>
<td></td>
<td>0</td>
<td>39</td>
<td>39</td>
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<tr>
<td>B10</td>
<td></td>
<td>38</td>
<td>0</td>
<td>38</td>
</tr>
<tr>
<td>BU11</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
3. Public Consultation Process February-March 2011

In the public consultation process in February and March 2011, staff asked the public for their views on which rapid transit option would provide the best value to our community. Staff presented and received feedback from the public on the rapid transit implementation options. Staff hosted 12 events including:

- **Tuesday, March 1, 2011**
  - PCC at Calvary United Church, 48 Hawkesville Road, St. Jacobs;
- **Wednesday, March 2, 2011**
  - Interactive webcast;
- **Thursday, March 3, 2011**
  - PCC at Albert McCormick Community Centre, 500 Parkside Drive, Waterloo;
  - PCC at Waterloo Region of Waterloo, Front Lobby, 150 Frederick Street, Kitchener;
- **Saturday March 5, 2011**
  - Information booth at Fairview Park Mall, 2960 Kingsway Drive, Kitchener;
  - Information booth at Kitchener Farmers Market, 300 King Street East, Kitchener;
- **Wednesday March 9, 2011**
  - PCC at First United Church, 16 William Street West, Waterloo;
  - PCC at Region of Waterloo, 150 Main Street, Cambridge;
- **Thursday March 10, 2011**
  - PCC at United Kingdom Club, 35 International Village Drive, Cambridge;
  - PCC at Faith Lutheran Church, 247 Westmount Road East, Kitchener;
- **Saturday March 12, 2011**
  - Information booth at Conestoga Mall, 550 King Street North, Waterloo; and
- **Saturday March 19, 2011**
  - Information booth at Cambridge Centre, 355 Hespeler Road, Cambridge.

4. Results of Public Consultation February-March 2011

The number of people signing in at each public consultation centre ranged from 60 to 260. The number of people attending in total was well over 1,000, with 984 people signing in. In addition, staff distributed more than 500 information packages through information booths at malls and the Kitchener Farmers Market and at speaking events.

In summarizing the public responses, staff looked for common themes with respect to issues mentioned and looked at whether the responses indicate:

- A preference for one rapid transit option over another;
- Where there is a preference for an option, whether it is for LRT, BRT, business-as-usual or other; and
- Where there is support for LRT, which LRT implementation option is preferred.
Staff have received and compiled written comments from 705 respondents. Full copies of the written comments are available in the library of the Regional Councillors or upon request from Regional staff. Of these 705 respondents, 615 (87 per cent) indicated support for one or more of the options including BRT, LRT or business-as-usual. The preference for the remaining 90 (13 per cent) is other or unknown. Of the 615 respondents who indicated support for LRT, BRT or business-as-usual:

- 451 (73 per cent) support LRT;
- 74 (12 per cent) support BRT;
- 64 (10 per cent) prefer business-as-usual; and
- 26 (4 per cent) are open to more than one choice.

Table 2 summarizes the most frequent comments, with the 705 respondents divided into those who supported LRT only, BRT only, or business-as-usual only, and those whose preference was other, unknown, undecided or open to more than one technology. The most common comment pertained to lower costs and lower taxes while maintaining value, regardless of the preferred rapid transit technology.

**Table 2: Frequent Comments**

<table>
<thead>
<tr>
<th>Note of respondents</th>
<th>Support LRT</th>
<th>Support BRT</th>
<th>Support Business-as-usual</th>
<th>Other / Unknown / Undecided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs, taxes or value</td>
<td>451</td>
<td>74</td>
<td>64</td>
<td>116</td>
</tr>
<tr>
<td>Rapid transit route or stations</td>
<td>68</td>
<td>52</td>
<td>45</td>
<td>64</td>
</tr>
<tr>
<td>Need to improve existing bus system</td>
<td>65</td>
<td>9</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Need good feeder bus and intercity connections with rapid transit</td>
<td>21</td>
<td>10</td>
<td>11</td>
<td>36</td>
</tr>
<tr>
<td>Fairness to Cambridge and the Townships</td>
<td>39</td>
<td>11</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Need to think of our children, grandchildren or the future</td>
<td>64</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

At the PCCs, Region staff provided the following responses to the frequent comments noted above:

**Costs, taxes or value:**

The options being considered provide a range of benefits and costs. Value and affordability will be a significant factor in the selection of an option. Implementation of the business-as-usual option (which is not considered a feasible option) would result in a property tax increase on an average household of approximately $25 per year for six years.

**Rapid transit route or stations:**

Staff responded to questions concerning station location and routing at the open houses. In some cases this addressed the concerns raised; in others the issues have not yet been resolved. Staff are reviewing the various remaining comments regarding routing and stations and will provide additional information during the upcoming public consultations.
Need to improve existing bus system/Need good feeder bus and intercity connections with rapid transit:

Improved existing bus/feeder system and intercity connections are vital to the success of rapid transit. All of the options being considered include expansion of the existing bus system and reconfiguring to function with the rapid transit system. The multimodal hub proposed at King and Victoria Streets will provide connections to intercity buses, GO rail and VIA.

Fairness to Cambridge and the Townships:

The LRT staging options are all considered a first step in implementing an LRT system between Conestoga Mall and the Ainslie Street Transit Terminal. The options match existing and projected ridership and development potential with the appropriate technology. Changing development patterns and increasing ridership in Cambridge will create the conditions required to implement LRT. The Region has and will continue to increase transit service in Cambridge and work with Cambridge to create the conditions for implementation of LRT. Implementation of a rapid transit system will benefit the Townships by limiting urban sprawl and protecting high quality farm land. The Townships are not contributing to the cost of a rapid transit system and the Region’s GRT Business Plan will consider additional conventional transit to the outlying urban areas.

Need to think of our children, grandchildren or the future:

Implementation of a rapid transit system is a long-term project that will influence the Region for decades.

Table 3 summarizes the number of respondents who supported each LRT implementation option. Of the 464 respondents who identified support for LRT, 106 (23 per cent) supported more than one LRT implementation option. Equal numbers, 190 respondents or 41 per cent, supported options L3 and L9 while 102 (22 per cent) supported L4. In total, 380 (82 per cent) supported one or more of L3, L4 and/or L9. Support for each of options L1, L2, L5, L6, L7 or L8 was 4 per cent or less. Another 51 (11 per cent) stated support for LRT but did not identify any specific option.

**Table 3: Public Support for LRT Implementation Options**

<table>
<thead>
<tr>
<th>LRT Implementation Option</th>
<th>Number of Respondents</th>
<th>Per Cent of 464 Respondents Who Support LRT</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>19</td>
<td>4%</td>
</tr>
<tr>
<td>L2</td>
<td>18</td>
<td>4%</td>
</tr>
<tr>
<td>L3</td>
<td>190</td>
<td>41%</td>
</tr>
<tr>
<td>L4</td>
<td>102</td>
<td>22%</td>
</tr>
<tr>
<td>L5</td>
<td>9</td>
<td>2%</td>
</tr>
<tr>
<td>L6</td>
<td>7</td>
<td>2%</td>
</tr>
<tr>
<td>L7</td>
<td>20</td>
<td>4%</td>
</tr>
<tr>
<td>L8</td>
<td>18</td>
<td>4%</td>
</tr>
<tr>
<td>L9</td>
<td>190</td>
<td>41%</td>
</tr>
<tr>
<td>Any LRT option</td>
<td>51</td>
<td>11%</td>
</tr>
</tbody>
</table>

In summary, of all 705 respondents:

- 78 per cent stated support for rapid transit; and
- 66 per cent stated support for LRT.

Based on the above response, there is strong public support for rapid transit, and in particular for
LRT. The strongest preference is for implementation options L3, L4 or L9, which all include LRT from Conestoga Mall to Fairview Park Mall or further south. There is little support for the options that include less LRT. Respondents from Cambridge in particular appear to prefer L9 because it would bring LRT to Cambridge.

5. **Peer Review Panel**

A peer review panel consisting of third-party experts in the fields of rapid transit planning, engineering and city-building investment initiatives reviewed work completed by the rapid transit project team since 2009. The five panellists included:

- George Dark, Partner at Urban Strategies Inc.;
- Eric Miller, Professor of Civil Engineering and Director of the University of Toronto Cities Centre, University of Toronto;
- John Hubbell, Associate Vice President with HDR iTrans and former general manager of transportation for the City of Calgary;
- Ashley Curtis, Associate with Steer Davies Gleave; and
- Alan Jones, Director with Steer Davies Gleave.

The panel met on Monday March 7 to discuss the Region’s rapid transit implementation options and their evaluation, as well as the refined rapid transit functional design plans. Appendix A contains biographies for the panellists and a summary of their comments and recommendations. The peer review panel concluded that:

“Overall, the Peer Review Panel felt that an investment in RT and in particular an investment in LRT represents a critical step towards meeting the Region’s growth and revitalization objectives, increasing transit ridership and creating more liveable and economically competitive communities.”

“The Region should not be surprised, or disheartened, that it is unable to deliver the full LRT system ultimately envisaged from day one. All transit systems are built in phases from areas of greatest ridership demand to areas of developing demand. The development of an LRT system in a series of phases, delivered over time and as demand and funding allow, is entirely normal and to be expected.”

6. **Evaluation of Options**

6.1 **Rapid Transit**

The Region continues to plan for significant population and employment growth over the next two decades. To provide for the projected growth, the Region will have to either continue its pattern of outward growth or encourage greater intensification in existing developed areas. High-quality rapid transit has been identified as a crucial component in managing growth, facilitating intensification and minimizing/reducing future “urban sprawl”. A high-quality rapid transit system is vital for the Region to evolve into a more compact urban form, helping to prevent sprawl and protect sensitive environmental landscapes and high quality farmlands from urban encroachment. A high-quality rapid transit system will also reduce the need for the construction of new or expanded roads in existing mature neighbourhoods and reduce road congestion. The peer review panel notes that:

“Waiting to implement rapid transit or deferring in favour of the Business as Usual option is not a viable alternative and will inhibit the Region’s ability to meet intensification objectives and jeopardize the countryside line. Without improved connectivity and alternatives to the private car for travel, the Region’s economic attractiveness and competitiveness will suffer due to increased congestion.”
“The addition of rapid transit along the central transit corridor is seen as a key strategy towards meeting the region’s intensification targets, accommodating employment and residential growth, while minimizing the need for urban expansion and promoting downtown revitalization.”

Staff have identified that **rapid transit is preferred over business-as-usual**, to provide transportation choice, to meet future transportation needs, and to build a viable, vibrant and sustainable community. This is supported by the public response, with 78 per cent of all respondents stating support for rapid transit.

### 6.2 Technology

The evaluation of technologies addresses the issue of which rapid transit technology is preferred for the long term, LRT or BRT.

#### 6.2.1 Multiple Account Evaluation

In 2005, the Region completed a transit technology review and considered both BRT and LRT in the analysis. This involved a review of the North American experience over the past 25 years. Some of the key findings from this study included:

- LRT is much more likely to achieve the objectives of the Regional Growth Management Strategy (RGMS) than BRT;
- LRT has higher capital and net operating costs than BRT, but provides significantly greater benefits;
- LRT has much greater potential to attract transit ridership and to shape urban form than BRT; and
- LRT has a demonstrable influence on land values by stimulating intensification and development and is recognized as a planning tool that can support and encourage the development of more sustainable land use patterns.

These initial findings from the 2005 study are reinforced by the Multiple Account Evaluation (MAE) analysis. The findings from the MAE were previously presented to Regional Council on June 24, 2009 (Report E-09-073). The Project Team used the MAE to compare BRT and LRT because the process provided for flexibility in measuring benefits, allowing decision makers to consider quantitative measures for benefits that were difficult or impossible to translate into dollars and a broader and more targeted representation of project benefits. The MAE examined the economic costs and benefits of the proposed transportation investment within a series of separate accounts including environmental, economic and social drivers. The MAE findings demonstrated that LRT has a higher cost to install than BRT, but delivers the greatest benefits to the community, and best accomplishes the goals of the RGMS.

Figure 1 presents the MAE results incremental to the business-as-usual scenario for full implementation of the two technologies. Business-as-usual means a gradual expansion of roads and bus service. LRT was rated better than BRT for user benefits, environmental benefits, land use benefits and social and community benefits. This information was also previously presented to Council on June 24, 2009 (Report E-09-073).
6.2.2 Costs

BRT is cheaper per kilometre to install and to operate than LRT. LRT costs approximately twice as much per kilometre as BRT to install. More details about capital and net operating costs are provided in Table 4. Operating costs are shown net of fare box revenue. LRT would have higher fare box revenues than BRT given that LRT (Conestoga Mall to the Ainslie Street Transit Terminal) is expected to have higher ridership than BRT.

6.2.3 Capacity

For BRT, the fleet would be a mixture of standard and articulated buses, with full standing capacity of approximately 75 and 115 passengers respectively. For LRT, the stations would be designed to accommodate two-car trains, with full standing capacity per train of up to 450 passengers, based on new vehicle designs now available. The train would have approximately four times the capacity of an articulated bus and six times the capacity of a standard bus.

For the Region’s rapid transit system, LRT would have more capacity than BRT because the trains would have more room for passengers, and more doors to quickly load and unload passengers with shorter dwell times at stations. Trains running on 5-minute frequencies could reasonably expect signal priority at intersections, so that trains would generally only stop at stations.

With BRT, the number of buses required to meet passenger demand is projected to exceed road capacity north of Fairview Park Mall in the peak period within 20 years. With bus frequencies every 2 to 3 minutes north of Fairview Park Mall, the buses would likely bunch up and signal priority would be impractical. With no spare road capacity, there would be no opportunity to expand passenger capacity by adding more buses. At that point, the Region would be facing replacement of the BRT with alternate rapid transit technology such as LRT, at considerable expense and disruption.

6.2.4 Urban Form

Both BRT and LRT would generate increased demand for lands near stations, increasing land values and generating new jobs. The estimated increase in land values and jobs is greater for LRT.
with up to 23,000 new jobs in station areas compared to just over 11,500 for BRT, and up to $370 million in increased land values, compared to up to $75 million for BRT.

6.2.5 Transportation Benefits

Transportation benefits include savings in travel time, vehicle operating cost, accident avoidance and parking cost. LRT provides a smoother, quieter, more comfortable ride than BRT with greater passenger capacity. LRT is generally preferred by riders. LRT is estimated to generate $523 million in transportation user benefits, compared to $360 million for BRT. The peer review panel notes that:

“Experience in other jurisdictions suggests that LRT has the potential to attract riders that would otherwise refuse to take bus transit.”

6.2.6 Environment and Public Health

LRT is projected to result in a reduction in greenhouse gas emissions of 22,260 tonnes per year by 2031 compared to 12,210 tonnes per year for BRT. LRT is projected to result in better environmental and public health.

6.2.7 Conclusion Regarding Technology

Based on these results, the project team concluded that an LRT system provides the best long-term environmentally-sustainable and financially responsible solution to help manage our community’s future growth and transportation needs. This conclusion is supported by the public response. Of those 551 respondents who support rapid transit, 84 per cent support LRT. This conclusion is also supported by the Region's peer review panel, who noted that:

“Of the two rapid transit options, LRT has greater capacity, higher ridership development potential and a greater ability to shape growth and redevelopment patterns to support the Region’s growth management strategy.”

6.3 LRT Stage 1 Implementation Option

6.3.1 LRT Staging

In considering LRT technology, it is also important to consider a staged transit system as a cost-effective way to allow transit to grow steadily. Rapid transit projects are usually implemented in stages to:

- allow for the efficient establishment of the rapid transit system and future extensions to the system as demand for public transport in the Region grows;
- enable the Region to cost-effectively deliver a staging option that meets the most immediate public transport needs;
- lessen the initial impact of the construction on the local community and road users by deferring the construction of certain sections; and
- allow a level of flexibility so that future stages can be refined and tailored to meet the growing needs of the Region as it continues to develop.

It should be noted that there are no LRT systems in North America that were built in their entirety right at the start. Edmonton and Calgary were frontrunners in building LRT in North America, starting with 7 km and 11 km respectively. Generally LRT systems are expanded in steps, as little as one kilometre at a time. It would be unrealistic for the Region to plan construction of an entire 39-kilometre LRT system all at once, whether that construction starts now or in the future. It is realistic and achievable for the Region to consider building an LRT system in affordable stages.
Therefore the LRT implementation options consist of a combination of LRT and aBRT, with the intent of expanding to a full LRT system in steps. The Peer Review Panel notes:

“While the extension of LRT to Cambridge may not be viable in the short term, the addition of aBRT will provide excellent service in a financially prudent manner that is well matched to the developing nature of Cambridge’s transit market.”

When Calgary first started building LRT in 1978, it had a population of 506,000. The population of Edmonton was just over 445,000 when the City started LRT construction in 1974. Currently, Waterloo Region has a population of 535,000. Calgary and Edmonton both started with LRT lines from their downtown to a point in the suburbs, with the major activity point being downtown. In comparison, Waterloo Region has many activity points concentrated in a linear corridor along its central transit corridor. This gives the Region the advantage of generating trips in both directions along our rapid transit route, rather than a commuter route that runs peak-direction full and off-peak direction empty. It also gives the Region the advantage of serving a much higher proportion of its population and employment than Calgary and Edmonton were able to with their first LRT lines.

The LRT implementation options consider sections of LRT in the northern half of the central transit corridor, with aBRT from the south end of the LRT to the Ainslie Street Transit Terminal, based on existing and projected ridership. Currently, passenger boardings per weekday in the central transit corridor include 29,200 passengers from Fairview Park Mall north and 6,400 passengers south of Fairview Park Mall. More than 80 per cent of the passenger activity is from Fairview Park Mall north and less than 20 per cent is south of Fairview Park Mall. There is four times more passenger activity from Fairview Park Mall to the north compared to the south.

In the first five to ten years, GRT services would be expanded with new and more frequent routes that would provide fast, convenient connections with the rapid transit system. This improved service would translate into a broader transit user base to promote expanded LRT services. Introduction of LRT service in stages would allow the system to grow and bus services to adjust to provide the best connections.

This approach would also provide the necessary time for the Region, area municipalities and private land owners to collaborate on planning initiatives for increasing densities, improving walkability, controlling parking and enhancing the overall public environment for using public transit in the planned rapid transit station areas. In areas where aBRT is implemented, initiatives to increase ridership would be implemented with a goal of converting to LRT as soon as possible.

### 6.3.2 Costs of LRT Implementation Options

Table 4 summarizes the costs of the LRT implementation options in 2014 dollars, assuming construction inflation of 12.5 per cent from 2011 to 2014. The table includes construction costs, the level of senior government funding and the additional Regional funding required to construct the different rapid transit options, as well as the anticipated net operating and maintenance costs. Note that other related projects would be included in the Moving Forward Transit Program to optimize the available Federal funding. The net operating and maintenance costs are net of the anticipated farebox revenue, and are expected to decrease over time as rapid transit ridership increases.
Table 4: LRT Implementation Option Costs (2014 $ millions)

<table>
<thead>
<tr>
<th>Option</th>
<th>Construction Costs</th>
<th>Provincial Funding</th>
<th>Federal Funding</th>
<th>Region's Share</th>
<th>2031 Net Operating &amp; Maintenance Costs per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2016</td>
</tr>
<tr>
<td>L1</td>
<td>$644</td>
<td>$300</td>
<td>$215</td>
<td>$129</td>
<td>$12.4</td>
</tr>
<tr>
<td>L2</td>
<td>$770</td>
<td>$300</td>
<td>$257</td>
<td>$213</td>
<td>$13.4</td>
</tr>
<tr>
<td>L3</td>
<td>$818</td>
<td>$300</td>
<td>$265</td>
<td>$253</td>
<td>$13.7</td>
</tr>
<tr>
<td>L4</td>
<td>$960</td>
<td>$300</td>
<td>$265</td>
<td>$395</td>
<td>$16.1</td>
</tr>
<tr>
<td>L5</td>
<td>$608</td>
<td>$300</td>
<td>$203</td>
<td>$105</td>
<td>$12.0</td>
</tr>
<tr>
<td>L6</td>
<td>$733</td>
<td>$300</td>
<td>$244</td>
<td>$189</td>
<td>$13.0</td>
</tr>
<tr>
<td>L7</td>
<td>$773</td>
<td>$300</td>
<td>$258</td>
<td>$215</td>
<td>$13.3</td>
</tr>
<tr>
<td>L8</td>
<td>$922</td>
<td>$300</td>
<td>$265</td>
<td>$357</td>
<td>$15.6</td>
</tr>
<tr>
<td>L9</td>
<td>$1550</td>
<td>$300</td>
<td>$265</td>
<td>$985</td>
<td>$19.8</td>
</tr>
</tbody>
</table>

6.3.3 Evaluation of LRT Implementation Options

Staff have evaluated the LRT implementation options based on ridership, level of intensification, transit integration and affordability. Transit integration includes the operation and convenience of passenger transfers between rapid transit and local or express routes and between LRT and aBRT. Table 5 summarizes the evaluation factors.

Table 5: Evaluation Factors for LRT Implementation Options

<table>
<thead>
<tr>
<th>Option</th>
<th>2031 Annual Ridership (millions)</th>
<th>Increase in Population in Station Areas (thousands)</th>
<th>Increase in Employment in Station Areas (thousands)</th>
<th>Transit Integration</th>
<th>Annual Property Tax Increase for 6 Years</th>
<th>Annual Incremental Household Impact for 6 Years**</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>12.6</td>
<td>19.8</td>
<td>12.7</td>
<td>Fair</td>
<td>0.97%*</td>
<td>$16.01*</td>
</tr>
<tr>
<td>L2</td>
<td>14.3</td>
<td>20.3</td>
<td>12.8</td>
<td>Fair</td>
<td>1.27%*</td>
<td>$20.98*</td>
</tr>
<tr>
<td>L3</td>
<td>15.0</td>
<td>20.3</td>
<td>13.1</td>
<td>Good</td>
<td>1.37%*</td>
<td>$22.63*</td>
</tr>
<tr>
<td>L4</td>
<td>15.4</td>
<td>20.3</td>
<td>13.7</td>
<td>Good</td>
<td>1.90%*</td>
<td>$31.46*</td>
</tr>
<tr>
<td>L5</td>
<td>12.2</td>
<td>19.3</td>
<td>11.6</td>
<td>Poor</td>
<td>0.88%*</td>
<td>$14.63*</td>
</tr>
<tr>
<td>L6</td>
<td>13.9</td>
<td>19.7</td>
<td>11.7</td>
<td>Poor</td>
<td>1.13%*</td>
<td>$19.04*</td>
</tr>
<tr>
<td>L7</td>
<td>14.7</td>
<td>19.7</td>
<td>12.0</td>
<td>Fair</td>
<td>1.25%*</td>
<td>$20.70*</td>
</tr>
<tr>
<td>L8</td>
<td>15.0</td>
<td>19.7</td>
<td>12.6</td>
<td>Fair</td>
<td>1.78%*</td>
<td>$29.53*</td>
</tr>
<tr>
<td>L9</td>
<td>18.0</td>
<td>22.6</td>
<td>16.9</td>
<td>Excellent</td>
<td>3.71%*</td>
<td>$62.65*</td>
</tr>
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</table>

* Annual property tax increase over six years (2012 to 2017) assuming all costs are funded by property tax levy. Tax levy impacts may be reduced through financing options (e.g. contribution from development charges, reduction of debt charges and upload savings from the Province).

** Based on average property assessment of $225,000 ($2010).

The options rank from excellent to poor for transit integration as follows:

- Option L9 ranks as excellent because it connects LRT to the existing transit terminals at Conestoga Mall, Fairview Park Mall and Ainslie Street, and requires no transfer between aBRT and LRT.
- Options L3 and L4 rank as good because the LRT connects to both Conestoga Mall and Fairview Park Mall, two key existing transit terminals. Option L4 has the further advantage of...
connecting to GO bus service at Sportworld Drive. These options provide a transfer between LRT and aBRT at either Fairview Park Mall or at Sportsworld Drive. The peer review panel noted that ending the LRT short of Fairview Park Mall would result in a missed opportunity to capture the existing higher density apartments in and around the mall and more significantly, limit the potential for intensification in and around the LRT/aBRT transfer point. Achieving LRT to Fairview Park Mall was viewed by the panellists as a prerequisite for the extension of LRT into Cambridge at a future date. To the north, Conestoga Mall represents an important point of access to the transit system for residents north of the city. Ending LRT at Northfield Drive was viewed as a missed opportunity to serve an existing key destination and provide connectivity to the wider transit network.

- Options L1, L2, L7 and L8 rank as fair because the LRT connects to only one of Conestoga Mall or Fairview Park Mall (existing transit terminals and connection points to conventional transit).
- Options L5 and L6 rank as poor because the LRT does not connect to either Conestoga Mall or Fairview Park Mall. If a roundabout is constructed at the intersection of Block Line Road with Courtland Avenue, this could provide a means for buses to turn around at this transfer point. However, an LRT terminus at any of Northfield Drive, Ottawa Street or Block Line Road will provide a challenge in terms of providing a satisfactory transit terminal.

6.3.4 Long-Term Vision

Option L9 would perform the best in terms of ridership, transit integration and level of intensification, however it would have a significant impact on property taxes, particularly if implemented all in one stage and fully funded over a six-year period. Public response is strong and equally supportive for options L9 and L3. **Staff support the long-term vision of implementing option L9**, with LRT from Conestoga Mall to the Ainslie Street Transit Terminal.

6.3.5 Technically Preferred Implementation Option

As a Stage 1 implementation option, **staff have identified option L3 as the preliminary technically-preferred rapid transit implementation option** because it provides good transit integration at the lowest cost, connecting LRT to both Conestoga Mall and Fairview Park Mall. The peer review panel notes that:

"Of the 10 choices, option L3 (LRT from Conestoga Mall to Fairview Park Mall) has the greatest integrity as a first stage in the implementation of regional rapid transit. This is based on its ability to support the wider network and catalyze redevelopment in and around the two anchoring station areas. Option L3 has the greatest potential to “build success in the first phase of development” by linking key origins and destinations along the corridor and connecting them to key existing anchor points (Conestoga Mall and Fairview Park Mall) within the Regional Transit System."

Option L3 is basically the same implementation option that was approved by Regional Council in June 2009. Further analysis and public input (41 per cent of the respondents that supported LRT supported L3 and 41 per cent supported L9) have reinforced and confirmed that original choice.

There may be concerns about the affordability of option L3 particularly in the context of the additional costs required to implement the RTMP. Appropriate integration of the rapid transit system with local and express bus routes and road improvements is essential to the overall success of the LRT. Decisions on rapid transit and the RTMP are related and impact each other. The following section provides information on the implementation of the RTMP.
6.3.6 Region Transportation Master Plan (RTMP)

The RTMP is a set of policy directions, priorities and plan that guides how people and goods will be moved around our community by car, truck, transit, walking and cycling for the next 20 years. The plan includes increments in conventional transit over the entire 20-year period. The reconfiguration, expansion and integration of the conventional transit system with the LRT system will contribute to the ridership potential and success of the LRT as well as serving the broader community. The RTMP includes the required expansion in conventional transit to support the rapid transit system.

During the 2012 to 2018 time frame, the RTMP included transit service hour expansions totaling 328,000 hours. Implementation of the RTMP between 2012 and 2018 would have required a property tax increase of approximately 1.1 per cent per year. Implementation of the RTMP is also important for the establishment of the feeder system for the LRT.

Recognizing that affordability of the rapid transit system and the RTMP are linked, Region staff feels that some deferral of the RTMP can occur without significantly impacting the rapid transit system. It would result in some increase in road congestion, initially poorer integration with LRT, possibly lower ridership and delay improvements in conventional transit. Implementing approximately 65 per cent (211,000 transit service hours) of the total additional hours proposed from 2012 to 2018 would create a conventional system that could adequately support the rapid transit system, although there may be some broader transportation system implications. Delaying the planned RTMP improvements by this amount would lengthen the time to implement the whole RTMP from 20 years to approximately 22 years.

Decreasing the amount of conventional transit expansion to 40 per cent of that originally anticipated would further impact the performance of the rapid transit system. It is important to note that the amount of additional transit service required to reach the 65 per cent level is similar to the amount approved in the 2011 budget. It could take one budget cycle following the completion of the first stage of LRT to increase the level of transit service to the 65 per cent level. With this scenario, the time period to implement the whole RTMP would lengthen from 20 years to approximately 23 years.

In either case, it is important to note that the decrease in additional transit service hours is a deferral of that increase and that continued RTMP implementation would result in the increases being implemented in the years following completion of the first stage of LRT. The overall impact to the 20-year RTMP would be to delay completion by approximately two or three years.

To address the issue of affordability, staff are proposing that an L3 option with implementation of either 65 per cent or 40 per cent of the RTMP be considered. Staff are also proposing that an L1 option with 65 per cent of the RTMP be considered. This option provides a reasonable but significantly lower level of LRT with a higher amount of RTMP for the same cost as L3 with 40 per cent RTMP. It is also proposed that the period to implement property tax increases for rapid transit be changed to seven years to better integrate with the 20-year RTMP financing strategy.

Therefore, the three implementation options considered most feasible by staff are:

4) Option L3a – building L3 and implementing 65 per cent of the RTMP between 2012 and 2018;
5) Option L3b – building L3 and implementing 40 per cent of the RTMP between 2012 and 2018; and
6) Option L1a – building L1 and implementing 65 per cent of the RTMP between 2012 and 2018.
6.3.7 Financial Analysis

Staff have prepared financing strategies for the three options (L1a, L3a and L3b). These financing strategies are based on tax rate increases for the next seven years, which form the basis of the ongoing contributions to the RTMP Reserve Fund and will be used to finance the capital expenditures and operating expenses of both the expansions to GRT service and the implementation of the rapid transit option selected.

Table 6 presents options and financial impacts for proceeding with LRT Stage 1 and staged implementation of the RTMP.

Table 6: Options for LRT/RTMP Implementation

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>L3a</td>
<td>65%</td>
<td>211,000</td>
<td>2.0%*</td>
<td>$33.12*</td>
</tr>
<tr>
<td>L3b</td>
<td>40%</td>
<td>138,000</td>
<td>1.5%*</td>
<td>$24.84*</td>
</tr>
<tr>
<td>L1a</td>
<td>65%</td>
<td>211,000</td>
<td>1.5%*</td>
<td>$24.84*</td>
</tr>
</tbody>
</table>

* Annual property tax increase over seven years (2012 to 2018) assuming all costs are funded by property tax levy. Tax levy impacts may be reduced through financing options (e.g. contribution from development charges, reduction of debt charges and upload savings from the Province).

** Based on average property assessment of $225,000 ($ 2010).

Table 6, above, indicates that a tax rate increase of 1.5 per cent per year, or approximately $25 per average household annually, for seven years provides sufficient funding to implement either option L3 with 40 per cent of the proposed RTMP or option L1 with 65 per cent of the proposed RTMP. If Council wishes to implement option L3 with 65 per cent of the proposed RTMP, the annual tax rate impact rises to 2.0 per cent. Each of these options maximizes the use of the Federal and Provincial funding that has been provided. The property tax impacts shown are relatively conservative estimates of the potential tax rate impacts. These property tax impacts may be mitigated by other funding allocations or mechanisms, such as development charges or upload savings.

Development charges have been used by other municipalities to reduce the tax rate impacts of similar transit projects. Currently, the Region has achieved the maximum development charge collectible for transit services. Development charges could only be collected for the LRT project if the Province amended the Development Charges Act to permit the Region to calculate the development charges for the project based on the increased level of service to be provided by the rapid transit extension. The Region’s consultants have calculated that, if a similar provision was made available to the Region, approximately $70 million of development charges could be collected over a 20-year period to offset the costs of construction of option L3, with an estimated increase in development charges of $975 per single detached dwelling (residential) and $0.78 per square foot for non-residential development. This would reduce the tax rate increases noted in Table 6, above, by approximately 0.15 per cent per year.

Financial capacity also becomes available to the Region from the completion of the Region’s debt servicing payments for the Regional buildings at 150 Frederick and 99 Regina Street in 2012 to 2014, which amounts to 1.41 per cent of the tax levy in those years. As well, the continuing uploading of social assistance costs to the Province provides capacity from 2012 to 2018 of approximately 2.55 per cent in tax levy in those years. This totals approximately 4 per cent of budget
capacity which could be utilized to offset the impact of LRT. This could reduce the tax rate increases noted in Table 6, above, by approximately 0.57 per cent per year.

The financial calculations do not include the potential impacts of land value uplift. The evaluation of rapid transit systems shows that there is significant land value uplift that is projected to occur. It is difficult to model the impacts on property taxes of land value uplift. Land value uplift is assessed growth. When a property is developed so that its value increases, the taxes collected also increase. These additional taxes that are collected on the increased value could be used to reduce future tax increases.

6.3.8 Preliminary Preferred Option

Staff is proposing option L3b as the preliminary preferred rapid transit implementation option. This would result in a 1.5 per cent annual property tax increase, or about $25 increase per year for seven years for the average household. Staff believe that this option provides the best value. Construction and the benefits of LRT are maximized in Stage 1. An adequate conventional transit expansion is implemented and implementation of the RTMP is extended by three years to approximately 23 years.

6.4 LRT Stage 2 Implementation

Public support is strong for option L9, with LRT from Conestoga Mall to the Ainslie Street Transit Terminal. If the Region proceeds with implementation option L3 for Stage 1, then Stage 2 would complete option L9, with LRT from Fairview Park Mall to the Ainslie Street Transit Terminal. As in other communities in North America, a LRT system would be implemented in stages. From Fairview Park Mall, the next stations are located at Sportsworld Drive, then Preston, followed by stations along Hespeler Road at Eagle Street/Pinebush Road, the Cambridge Centre, CanAmera Parkway, Coronation Boulevard/Dundas Street, and the Ainslie Street Transit Terminal. To facilitate the implementation of Stage 2 as soon as possible, staff propose to:

- Begin the Transit Project Assessment for LRT from Fairview Park Mall to the Ainslie Street Transit Terminal in 2014;
- Acquire property for the implementation of Stage 2 as properties come on the market;
- Undertake measures to encourage transit-supportive development, to enhance transit ridership throughout the urban service areas and to expedite the development of LRT south of Fairview Park Mall;
- Implement transit-supportive strategies in Cambridge;
- Pursue additional Federal and Provincial funding for Stage 2. With the successful implementation of LRT Stage 1, it is reasonable to expect that additional Federal and Provincial funding would become available for LRT Stage 2; and
- Explore the location of a future multi-modal transit facility in Cambridge to link to future GO rail service.

7. Draft Staff Recommendations

Regional staff have drafted the following recommendations, proposed to be presented to the public for their comment through the next series of public consultation, and then presented to Council in June 2011:

THAT the Regional Municipality of Waterloo take the following action regarding the Region’s proposed rapid transit system:

a) Approve Light Rail Transit (LRT) as the preferred technology;
b) Approve the LRT route as follows:

- Along King Street from Conestogo Road to Northfield Drive;
- Along Northfield Drive from King Street to the Region-owned Waterloo Spur rail line;
- Along the Region-owned Waterloo Spur rail line from Northfield Drive to Erb Street;
- Southbound along Caroline Street from Erb Street to Allen Street and along Allen Street from Caroline Street to King Street;
- Northbound along King Street from Allen Street to Erb Street and along Erb Street from King Street to Caroline Street;
- Along King Street from Allen Street to Victoria Street;
- Southbound along Victoria Street from King Street to Charles Street and along Charles Street from Victoria Street to Benton Street;
- Northbound along Benton/Frederick Street from Charles Street to Duke Street, along Duke Street from Frederick Street to Francis Street, along Francis Street from Duke Street to King Street, and along King Street from Francis Street to Victoria Street;
- Along Charles Street from Benton Street to Borden Avenue;
- Southbound along Borden Avenue from Charles Street to the Huron Park Spur rail line and along the Huron Park Spur rail line from Borden Avenue to Ottawa Street;
- Northbound along Ottawa Street from the Huron Park Spur rail line to Charles Street and along Charles Street from Ottawa Street to Borden Avenue;
- Along the Huron Park Spur rail line from Ottawa Street to Hayward Avenue;
- Along Hayward Avenue from the Huron Park Spur rail line to Courtland Avenue;
- Along Courtland Avenue/Fairway Road from Hayward Avenue to Wabanaki Drive (note: this section of the LRT route would change should the hydro corridor route become available);
- Along Wabanaki Drive from Fairway Road to the CP Waterloo Subdivision rail line;
- Along the CP Waterloo Subdivision rail line from Wabanaki Drive to Eagle Street;
- Along Eagle Street from the CP Waterloo Subdivision rail line to Hespeler Road;
- Along Hespeler Road from Eagle Street to Water Street;
- Along Water Street from Hespeler Road to Bruce Street;
- Along Bruce Street from Water Street to Ainslie Street; and
- Along Ainslie Street from Bruce Street to the Ainslie Street Transit Terminal;

c) Approve the LRT stations along the LRT route as follows:

- on King Street at Conestogo Road at Conestoga Mall;
- on the Region-owned Waterloo Spur rail line at Northfield Drive, at the Research and Technology Park, at the University of Waterloo, and at Seagram Drive near Wilfrid Laurier University;
- on Caroline Street at Willis Way;
- on King Street at Willis Way, at the Grand River Hospital, and at the multi-modal transit hub;
- on Duke Street at Young Street;
- on Frederick Street at Duke Street;
- on Charles Street at Gaukel Street, at Benton Street, at Cedar Street, at Borden Street, and at Ottawa Street;
- on Courtland Avenue at Block Line Road;
- on Fairway Road at the signalized entrance to Fairview Park Mall (note: this station location would change should the hydro corridor route become available);
- on the CP Waterloo Subdivision rail line at Sportsworld Drive and at Eagle Street;
- on Hespeler Road at Eagle Street/Pinebush Road, at the Cambridge Centre, at CanAmera Parkway, and at Coronation Boulevard/Dundas Street; and
- along Ainslie Street at the Ainslie Street Transit Terminal;
d) Approve the implementation of option L3b as Stage 1 of the LRT system including LRT from Conestoga Mall to Fairview Park Mall and adapted bus rapid transit from Fairview Park Mall to the Ainslie Street Transit Terminal (note: the description of Stage 1 would change if Council approves option L1 rather than L3). A 1.5 per cent per year increase to the annual budget would be established as a long-term funding source for LRT and RTMP over a seven-year period beginning in 2012;

e) Direct staff to pursue a Regional development charge legislative exemption in order to assist with funding the LRT project;

f) Approve an allocation of $1,000,000 annually, for a 10-year period to implement transit-supportive strategies in Cambridge, subject to final approval during the 2012 budget process. Details of the program to be developed in conjunction with the City of Cambridge and to be presented to Regional Council for approval in a subsequent report; and

g) Direct staff to pursue the following steps to expedite Stage 2 of the LRT system including LRT from Fairview Park Mall to the Ainslie Street Transit Terminal (note: the description of Stage 2 would change if Council approves option L1 rather than L3), including:

- Undertake measures to encourage transit-supportive development, to enhance transit ridership throughout the urban service areas and to expedite the development of LRT south of Fairview Park Mall, including (but not limited to) developing incentives for transit-oriented developments and supporting and developing transportation demand management strategies for new and existing business and residents;
- Begin the Transit Project Assessment for LRT from Fairview Park Mall to the Ainslie Street Transit Terminal in 2014;
- Acquire property for the implementation of Stage 2 of the LRT system as property needs are defined and properties come on the market;
- Pursue additional Federal and Provincial funding for Stage 2 of the LRT system; and
- Explore the location of a future multi-modal transit facility in Cambridge to link to future GO rail service.

8. Next Steps

Regional staff are on track with and continue to follow the rapid transit project schedule adopted by Council on January 25, 2011. In February/March, staff undertook public consultation regarding implementation options. Continuing to follow that schedule, staff anticipate that steps leading up to the Transit Project Assessment for the rapid transit project will include:

- April/May: public consultation regarding the preliminary preferred rapid transit implementation option and draft recommendations;
- June: Council approval of the preferred rapid transit system;
- July/August/September: completion of the Environmental Project Report; and
- October: commencement of the six-month Transit Project Assessment (the expedited Provincial environmental assessment process for transit projects).

Following Council approval of the preferred rapid transit system in June, staff will look in more detail at procurement options for the rapid transit project, and report back to Council by the end of 2011 regarding a preferred procurement strategy.
9. **Upcoming Public Consultation Program**

Staff will hold 16 public consultation events in April and May 2011, including 10 public consultation centres, four information booths at malls and the Kitchener Farmers Market, and two public input meetings. For this round of public consultation, staff have added three more public consultation centres to provide a public consultation centre in each of the Townships. Plans for the upcoming public consultation include:

- **Saturday, April 30, 2011**
  - Information booth at Cambridge Centre, 355 Hespeler Road, Cambridge;
  - Information booth at Kitchener Farmers Market, 300 King Street East, Kitchener;

- **Tuesday, May 3, 2011**
  - PCC at Calvary United Church, 48 Hawkesville Road, St. Jacobs, Township of Woolwich;

- **Wednesday, May 4, 2011**
  - PCC at Waterloo Region of Waterloo, Front Lobby, 150 Frederick Street, Kitchener;
  - PCC at Albert McCormick Community Centre, 500 Parkside Drive, Waterloo;

- **Thursday, May 5, 2011**
  - PCC at Cambridge Centre for the Arts, 60 Dickson Street, Cambridge;
  - PCC at First United Church, 16 William Street West, Waterloo;

- **Tuesday, May 10, 2011**
  - PCC at United Kingdom Club, 35 International Village Drive, Cambridge;
  - PCC at Kitchener Gospel Temple, 9 Conway Drive, Kitchener;

- **Thursday, May 12, 2011**
  - PCC at Ayr Fire Hall, 501 Scott Street, Ayr, Township of North Dumfries;
  - PCC at St. Agatha Community Centre, 1791 Erb’s Road, St. Agatha, Township of Wilmot;

- **Saturday, May 14, 2011**
  - Information booth at Fairview Park Mall, 2960 Kingsway Drive, Kitchener;
  - Information booth at Conestoga Mall, 550 King Street North, Waterloo;

- **Wednesday, May 18, 2011**
  - PCC at St. Clements Community Centre, 1 Green Street, St. Clements, Township of Wellesley;

- **Tuesday, May 31, 2011**
  - Public Input Meeting starting at 6 p.m. in Regional Council Chambers, 150 Frederick Street, Kitchener; and

- **Wednesday, June 1, 2011**
  - Public Input Meeting starting at 6 p.m. in Regional Council Chambers, 150 Frederick Street, Kitchener.
Staff propose to provide information on the rapid transit project in general and the preliminary preferred rapid transit implementation option at each event. The public will be able to submit their comments in person, by mail, by email, or through the website.

The public will have multiple opportunities to obtain information or to provide input to the rapid transit project. Staff will notify the public of these opportunities through television advertisements running for two weeks, through email or regular mail notices to the rapid transit contact list of more than 3,400 addresses, through roadside signs and website updates, and through newspaper advertisements placed in seven different newspapers.

CORPORATE STRATEGIC PLAN:

The report supports several objectives of Council’s Strategic Focus. These include:

Focus Area 1: Environmental Sustainability: Protect and enhance the environment.
Focus Area 2: Growth Management: Manage and shape growth to ensure a livable, healthy, thriving and sustainable Waterloo Region.
Focus Area 5: Infrastructure: Provide high quality infrastructure and asset management to meet current needs and future growth.

FINANCIAL IMPLICATIONS:

Capital and operating and maintenance costs of the L3 rapid transit option would result in a annual property tax increases of 1.37 per cent for six years. The initial stages of the RTMP also need to be implemented at the same time. Full implementation of the RTMP would result in an additional tax rate increase of 1.1 per cent per year. Full implementation of both option L3 and RTMP over the next six years is clearly not affordable.

In order to integrate rapid transit and the RTMP, staff have prepared financing strategies for the three options (L1a, L3a and L3b). The financing strategies are based on tax rate increases for the next seven years, which form the basis of the ongoing contributions to the RTMP Reserve Fund and will be used to finance the capital expenditures and operating expenses of both the expansions to GRT service and the implementation of the rapid transit implementation option selected. The financial impacts of the three options are shown in Table 7 below.

Table 7: Options for LRT/RTMP Implementation

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<tbody>
<tr>
<td>L3a</td>
<td>65%</td>
<td>211,000</td>
<td>2.0%*</td>
<td>$33.12*</td>
</tr>
<tr>
<td>L3b</td>
<td>40%</td>
<td>138,000</td>
<td>1.5%*</td>
<td>$24.84*</td>
</tr>
<tr>
<td>L1a</td>
<td>65%</td>
<td>211,000</td>
<td>1.5%*</td>
<td>$24.84*</td>
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</table>

* Annual property tax increase over seven years (2012 to 2018) assuming all costs are funded by property tax levy. Tax levy impacts may be reduced through financing options (e.g. contribution from development charges, reduction of debt charges and upload savings from the Province).
** Based on average property assessment of $225,000 ($ 2010).

Table 7 indicates that a tax rate increase of 1.5 per cent per year, or approximately $25 per average household annually, for seven years provides sufficient funding to implement either option L3 with...
40 per cent of the proposed RTMP or option L1 with 65 per cent of the proposed RTMP. If Council wishes to implement option L3 with 65 per cent of the proposed RTMP, the annual tax rate impact rises to 2.0 per cent. Each of these options maximizes the use of the Federal and Provincial funding that has been provided. The property tax impacts shown are relatively conservative estimates of the potential tax rate impacts. These property tax impacts may be mitigated by other funding allocations or mechanisms, such as development charges, reductions in debt servicing costs or upload savings.

If the Province changed the Development Charges Act to allow collection of a development charge for LRT, the Region could collect approximately $70 million of development charges over a 20-year period to offset the costs of construction of option L3. The estimated increase in development charges would be approximately $975 per single detached dwelling (residential) and $0.78 per square foot for non-residential development. The tax rate increases to implement option L3 would be reduced by approximately 0.15 per cent per year.

Between 2012 and 2018, upload savings and completion of debt servicing payments totalling 3.96 per cent of the tax levy in those years will occur. This tax room could be used to reduce the tax rate increases for option L3b by approximately 0.57 per cent per year.

Assessment growth due to intensification and development could also be used to reduce future tax increase.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

The rapid transit project team includes representatives from Regional Council, the CAO’s office, Communications, Community Planning, Finance, Legal, Public Health, Social Services, Transit Development, Transportation and Environmental Services, Transportation Planning and Transit Services.

ATTACHMENTS:

Appendix A – Summary of Comments and Recommendations from the Peer Review Panel
Appendix B – Rapid Transit Maps

PREPARED BY: Nancy Button, Director, Rapid Transit

APPROVED BY: Thomas Schmidt, Commissioner, Transportation and Environmental Services
Summary of Comments and Recommendations from the Peer Review Panel

Members of Peer Review Panel

John Hubbell

Mr. Hubbell is an Associate Vice President with HDR, an Adjunct Associate Professor with The University of Calgary’s Department of Civil Engineering and has over 40 years of public sector experience in planning, building and operating multi-modal transportation systems. Mr. Hubbell was the General Manager of Transportation for the City of Calgary, and was the co-lead (2006 – 2010) of Calgary’s Municipal Development Plan and the Calgary Transportation Plan which are the integrated land use and transportation master plans that will direct Calgary’s future development. He has extensive experience in the planning and operation of pedestrian, cycling, taxi, paratransit, road, urban bus and light rail transit (LRT) systems, and was instrumental in establishing Calgary as a leader in LRT, creating one of the most successful LRT systems in North America. He has also managed major operating and capital budget programs. Mr. Hubbell is experienced in developing consensus-based plans that integrate land use and transportation, and incorporate the sustainability principles that are required to build strong communities today.

Eric J. Miller

Eric Miller is the inaugural Director of the University of Toronto Cities Centre. He has B.A.Sc. and M.A.Sc. degrees from the University of Toronto and a Ph.D. from M.I.T. He has been a faculty member in the Department of Civil Engineering, University of Toronto since 1983, where he served as Acting Chair in 1998-99, 2003 and 2007. Prof. Miller is Chair of the U.S. Transportation Research Board (TRB) Committee on Travel Behavior and Values and past-Chair of the International Association for Travel Behaviour Research. He is past-Chair of the TRB Sub-Committee on Integrated Transportation – Land Use Modeling and Member Emeritus of the TRB Transportation Demand Forecasting Committee. He served on the TRB Task Force on Moving Activity-Based Approaches to Practice and the US National Academy of Sciences Committee for Determination of the State of the Practice in Metropolitan Area Travel Forecasting as well as on numerous travel demand peer review assignments.

Eric’s research interests include: integrated land use transportation modelling; analysis of the relationship between urban form and travel behaviour; modelling transportation system energy use and emissions; and microsimulation modelling. He is the developer of GTAModel, a “best practice” regional travel demand modeling system; TASHA, a state-of-the-art activity-based travel microsimulation model; and ILUTE, an integrated land use – travel demand model system for the GTA. He is co-author of the textbook Urban Transportation Planning: A Decision-Oriented Approach, the second edition of which was published in 2001.

George F. Dark

George Dark, FCSLA, FASLA, partner at Urban Strategies, is an urban designer, landscape architect and Fellow with the Canadian Society of Landscape Architects and the American Society of Landscape Architects. George has over 30 years of professional experience and, since joining the firm in 1987, has led a variety of projects including new community plans, urban regeneration strategies, campus master plans, open space master plans, streetscape designs, design guidelines and public policy documents. George’s work focuses on the quality of urban environments and he regularly coordinates large groups of diverse professionals and excels at guiding projects through complex approval and consultation processes.
George was co-lead on the APA and CIP award winning Saint Paul Central Corridor LRT Development Strategy examining the city-building potential resulting from the creation of an 11-mile LRT linking downtown Minneapolis and downtown Saint Paul. He assisted the University of Ottawa and the City of Ottawa to analyze the Development Potential of the Arts Court Site to capitalize on the LRT investment while integrating with the historic buildings and surrounding. As well, he examined the long-term effect of the LRT on the whole area and how it could evolve and be transformed over time.

Alan Jones

Alan Jones has BSc and MSc qualifications and is Steer Davies Gleave’s Director leading the company’s North American Urban Transit business. Before joining Steer Davies Gleave he worked for the Netherlands Transport Research Institute in The Hague, and the Long Term Transportation Planning Dept of the City of Westminster, Central London, UK. He has over 30 years transportation/urban transit experience in the UK, Europe and North America and has extensive experience in the development and delivery of a wide range of urban transit technologies including rail, light rail transit, bus rapid transit, bus, metros, and automated people-mover systems. With his transportation planning background he has coordinated all aspects of scheme development including route identification, alignment design, ridership forecasting, financial and economic appraisal, multiple account evaluation, public consultation and stakeholder engagement, environmental assessment, urban design, systems and operations specifications, applications for approvals and powers, procurement specification and contract development. He has also appeared as an expert witness at rapid transit public inquiries. In recent years he has been Steer Davies Gleave’s Project Director for urban transit projects in Vancouver, Edmonton, Calgary, Ottawa, Hamilton, Sacramento and Portland. He has presented at a range of international conferences including Rail-Volution, the Canadian Urban Transit Association (CUTA) Annual Conference and UITP’s Light Rail Conference.

Ashley Curtis

Ashley Curtis, an Associate with Steer Davies Gleave and head of their Toronto Office, is a Chartered transport planner and qualified project manager specialising in leading the development and delivery of transport strategies, urban transit projects and integrated transport solutions from inception through to construction. With 21 years’ experience, 16 of which was spent in the public sector, Ashley is well versed in working closely with local politicians and key stakeholders leading multi-disciplinary, multi-company teams with an emphasis on project leadership, strong relationship building and communication and negotiation skills to arrive at acceptable, deliverable solutions. He has worked and advised on strategy and urban transit projects in the UK, Europe and North America with a focus on integrating land use and transport to deliver wider city and regional objectives. With his transportation planning background he has coordinated all aspects of rapid transit scheme development including route identification, alignment design, ridership forecasting, financial and economic appraisal, public consultation and stakeholder engagement, environmental assessment, urban design, systems and operations specifications, applications for approvals and powers, procurement specification and contract development. He was instrumental in developing and delivering what will be the longest guided bus system in the world, the Cambridgeshire Guided Busway which is currently under construction, the Fastrack rapid transit system in Kent and led advancement of the South Essex Rapid Transit project. He has also advised the City of Edmonton on its long term transit planning and expanding its LRT system and has led the LRT planning, design and engineering work for the City of Hamilton.
Region of Waterloo

Waterloo Rapid Transit Implementation Options: Peer Review Summary Report

April 06, 2011

In association with:

Ashley Curtis, Steer Davies Gleave
John Hubbell, HDR iTrans
Alan Jones, Steer Davies Gleave
Eric Miller, University of Toronto
1.0 INTRODUCTION

Since 2004, the Region of Waterloo has been undertaking a detailed assessment of opportunities and options for the implementation of a proposed Waterloo Rapid Transit (WRT) system linking the three cities of Waterloo, Kitchener and Cambridge. The project is a key component of the Region’s growth strategy, supporting significant re-urbanization and the protection of important countryside and water recharge areas.

Following a significant amount of detailed work and comparative assessment exploring a range of Rapid Transit (RT) options, the Region of Waterloo approved Light Rail Transit (LRT) as the preferred technology in June 2009 and identified a two phase staging strategy. The first stage involved the introduction of LRT to Waterloo and north Kitchener with an adapted Bus Rapid Transit (aBRT), similar to Brampton’s Zum system, serving south Kitchener and Cambridge. Stage 2 would see the extension of LRT south to downtown Galt in Cambridge creating a seamless LRT system serving the three cities.

Funding support from both the Federal and Provincial Governments has been secured and the Region is now considering how to achieve the best value from the project, including the most appropriate phasing mix.

In support of the two phase staging strategy, the Region of Waterloo has been exploring 10 detailed staging options to determine the northern and southern extent of the first phase of LRT construction. In order to assist in the assessment of options, the Region assembled a Peer Review Panel to bring fresh eyes of respected professionals who have engaged in rapid transit planning, design, engineering and significant city building investment initiatives.

The Panel was asked to provide advice on how to assess the options, make recommendations as to a preferred option and provide commentary on several detailed aspects of project implementation.

This report provides a summary of the scope, process, key messages and recommendations from the Peer Review Panel for consideration by the Region of Waterloo Council and staff.

Overall, the Peer Review Panel felt that an investment in RT and in particular an investment in LRT represents a critical step towards meeting the Region’s growth and revitalization objectives, increasing transit ridership and creating more livable and economically competitive communities.

To that end, the assessment of implementation options should account for the ability for each option to deliver long-term intensification and place-making, and contribute to the integrity of the regional transit network.

While the extension of LRT to Cambridge may not be viable in the short term, the addition of aBRT will provide excellent service in a financially prudent manner that is well matched to the developing nature of Cambridge’s Transit Market.

In both this review and the previous review, the panel has not seen a very robust exploration of the city-building potential and specifically potential change within the station areas to assess the future growth potential.
2.0 BACKGROUND

On May 15, 2004, the Government of Canada, the Government of Ontario and the Region of Waterloo jointly announced funding for the Region of Waterloo Growth Management Strategy Transit Initiative Technical Studies and an Individual Environmental Assessment (EA) for a regional rapid transit initiative. The implementation of a rapid transit route linking the major centres of activity to create a central transit corridor linking Waterloo, Kitchener and Cambridge was seen as an important component towards managing growth, encouraging re-urbanization and promoting downtown revitalization in the region.

A 3 Phase EA process was commenced in January 2006. Phase 1 comprised an evaluation of transportation alternatives (status quo, improved conventional transit, expanded road network and rapid transit) to determine how each met the goals of the Regional Growth Management Strategy. As an outcome of this phase, Rapid Transit was selected as the preferred alternative to assist in the management of the region’s growth.

In Phase 2, a series of alternative transportation technologies were assessed. Of these, Bus Rapid Transit (BRT) and LRT operating at-grade in dedicated on-road and off-road conditions were found to be most capable of accommodating the projected passenger demands and project objectives.

Given the choice of technologies, a series of potential rapid transit routes and station locations were identified. These were evaluated against a series of 21 criteria identified in the project’s terms of reference and input was received from the public at a series of workshops. The process followed for establishing potential station locations and for short listing rapid transit route alternatives. From this evaluation a ranked short listed set of five route alternatives was compiled.

As a final step in Phase 2 of the EA process, the identified combinations of route and technology alternatives were assembled to create a series of reasonable system alternatives. These were evaluated under an Multiple Accounts Evaluation (MAE) process which looked at 5 broad categories of assessment. These were:

1. Capital Costs and Operating Fees
2. Direct Transportation Benefits
3. Land Use / Economic Development Benefits
4. Social and Community benefit
5. Environmental Impacts

As an outcome of the MAE a preferred alternative labelled the Hybrid 2 was identified. This consisted of LRT from Farmers’ Market Road to Conestoga Mall. From there, the LRT would travel south through the Waterloo and Kitchener Downtowns, west on Ottawa and along the Courtland
Avenue corridor to Fairview Park Mall. From Fairview Park Mall the Hybrid 2 alternative proposes to operate a Priority Bus Route along the shoulders of Hwy. 8 and Hwy. 401 to Hespeler Road and then south to downtown Cambridge. Further details are outlined in the Region of Waterloo Planning and Works Committee Report dated May 12, 2009.

In 2010 the Provincial and Federal Governments announced their funding commitments for the project and the Region initiated a detailed review of the financial implications of the preferred option. In response to concerns raised about the affordability of the project, specifically the region’s share of the costs, staff were directed to identify and objectively review a series of additional implementation options for Council’s consideration. The overall objective being to identify an option that was both affordable and delivered best value to the community.

A total of 10 implementation options were considered exploring various lengths of LRT in the northern half of the LRT corridor and abRT to the south. A full LRT and full BRT option were also explored. The options were generated based on a number of considerations including:

• affordability;
• likely public transport demand;
• ability to meet public transport service needs;
• economies of scale to capitalize the system; and
• maintenance yard and storage facility locations.

The 10 transit implementation options that were reviewed and subject to the Panel’s discussion are detailed in Appendix 1 of this report.
3.0 PEER REVIEW PANEL’S SCOPE

The Panel Composition

The Peer Review Panel, assembled by Region of Waterloo staff, includes a range of professionals with expertise in transportation engineering, transit planning, design and operation, urban planning, urban design and city building initiatives. The five member panellists are: Ashley Curtis, Associate with Steer Davies Gleave; George Dark, Partner with Urban Strategies; John Hubbell, Associate Vice President with HDR iTrans; Alan Jones, Director with Steer Davies Gleave; and Eric Miller, Director of Cities Centre, University of Toronto.

The Scope

The Panel was asked by the Region of Waterloo staff to provide an independent review of the Region’s Implementation Options, to provide feedback on the evaluation factors and make a recommendation on a preferred option. More specifically, the Panel was asked to respond to the following questions:

The Options

3. Of the 10 options in total, is there a preferred implementation option or options?

4. Is there an additional option that has not yet been tabled but should be considered?

Detailed Considerations

5. What are the benefits and trade-offs of the proposed loop in the Ottawa/Borden Area?

6. What are the key considerations for enhancing connections between bus, aBRT and LRT to create a more seamless system?

The Panel Process

The Panellists were provided with background material two weeks prior to meeting. On March 7, the Panel gathered for a day of review and discussion in workshop format. The Panel was offered a detailed presentation by Regional staff on the various options and how they related to the Region’s larger planning initiatives. Following this, the Panel held a roundtable discussion, facilitated by George Dark focusing on the Region’s key questions. Regional staff attended as a resource and as observers to the Panel.

Urban Strategies has prepared this summary report, on behalf of the Peer Review Panel. Each member of the Panel has reviewed and is in agreement with the summary report and outcome related recommendations.
4.0 OUTCOME

The following is a summary of the key directions resulting from the WRT Implementation Options Peer Review Workshop. They represent the key broad thrusts of the discussion and are generally structured in response to the directed scope and questions.

Overall

a) The implementation of RT and in particular LRT, is a fundamental strategy towards achieving the Region’s growth objectives, preserving prime Environmentally Sensitive Areas (ESAs) and countryside lands and maintaining the Region’s economic competitiveness.

- The investment in RT needs to be communicated as a component of a wider regional initiative to manage growth and increase competitiveness.

- Waiting to implement rapid transit or deferring in favour of the Business as Usual (BAU) option is not a viable alternative and will inhibit the Region’s ability to meet intensification objectives and jeopardize the countryside line. Without improved connectivity and competitive alternatives to the private car for travel, the Region’s economic attractiveness and competitiveness will suffer due to increased congestion. The implications of this need to be clearly articulated and presented to members of the public and council so that the “value” of an investment in RT is understood.

b) Of the RT alternatives, LRT is the most appropriate technology to serve the Region.

- Of the two RT options, LRT has greater capacity, higher ridership development potential and a greater ability to shape growth and redevelopment patterns to support the Region’s growth management strategy.

Evaluation Criteria

c) Although not a prerequisite for moving forward with RT, as the project moves forward the route should be analyzed to account for the contribution that adding high order transit will have on the evolution of the urban form of the city and how that change contributes towards delivering the original goals and objectives of Rapid Transit. An assessment of development opportunities along the corridor, through station area and area specific plans will help to identify areas with the greatest potential to benefit from RT service and this can in turn inform the detailed design and planning of the route in a positive way.

- The addition of RT along the central transit corridor is seen as a key strategy towards meeting the region’s intensification targets, accommodating employment and residential growth, while minimizing the need for urban expansion and promoting downtown revitalization.

- As it is at the station areas where the greatest change can be expected to occur, station area plans, identifying the potential of each station to accommodate change will need to be completed. Not all areas along the corridor will attract the same levels of development.

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and a detailed exploration of the redevelopment potential around each of the station areas will help to identify areas that will benefit most from higher levels of transit service. In the absence of this work, it is difficult to assess the impacts of various options on the redevelopment and intensification of the corridor and to measure those impacts against the costs of various alternatives.

- While there will not be time to complete this work prior to the selection of a preferred alternative, the initiation of corridor-wide and station area planning represents a critical piece of work that should be used to guide the detailed planning and design stages of the project.

d) The panel encourages the Region to understand that LRT will always have greater acceptance among a broader range of potential riders than BRT.

- Experience in other jurisdictions suggests that LRT has the potential to attract riders that would otherwise refuse to take bus transit.
- It is considered that LRT has a greater ability to shape urban form and density towards meeting the Region’s objectives.

e) Using similar land use assumptions to generate ridership in order to assess each of the alternative options has resulted in a very conservative analysis which is likely to have overplayed the attractiveness of some of the options.

- BRT can be expected to result in a lower level of development and job creation. The case for BRT is therefore likely to have been overstated.
- The shorter lengths of LRT combined with aBRT are unlikely to deliver the level of development investment that full provision of LRT would.

f) The evaluation of implementation options should account for the impact of alternatives on the integrity of the wider regional transit network.

- The implications of various implementation options on the delivery and functioning of the wider regional transit network has not been fully factored into the evaluation of the options.
- Options should be presented in terms of their ability to support the Region’s existing and planned transit initiatives.
g) The evaluation of options should take into account the deliverability of each option.
- An evaluation of deliverability should cover areas such as political/public acceptability, overall costs (capital and operating) and constructability.

Implementation Options

h) The region has explored a full range of implementation options related to the council approved RT plan and staging options.

i) The ability for options to both catalyze new development and support the wider regional transit network should be the key factors in the selection of a preferred option.

j) Of the 10 choices, option L3 (LRT from Conestoga Mall to Fairview Park Mall) has the greatest integrity as a first stage in the implementation of regional RT. This is based on its ability to support the wider network and catalyze redevelopment in and around the two anchoring station areas.
- Option L3 has the greatest potential to “build success in the first phase of development” by linking key origins and destinations along the corridor and connecting them to key existing anchor points (Conestoga Mall and Fairview Park Mall) within the Regional Transit System.

- The larger land areas in and around the mall locations increase opportunities for enhancing inter-modal connectivity at these locations linking LRT, aBRT, regional bus and local bus networks. In addition, their location adjacent to the Conestoga Parkway positions these stations to capture significant park-n-ride activity.
- The station areas around each of the malls have significant redevelopment opportunity that could the investment in LRT. This would build on recent and emerging trends in retailing that are increasingly resulting in the redevelopment and intensification of mall properties.
- Achieving LRT to Fairview Park Mall was viewed by panelists as a prerequisite for the extension of LRT into Cambridge at a future date.
- To the south, ending the LRT short of Fairview Park Mall (options L1 and L2) would result in a missed opportunity to capture the existing higher density apartments in and around the mall and more significantly, limit the potential for intensification in and around the LRT/aBRT transfer point.
- To the north, Conestoga Mall represents an important point of access to the transit system for residents north of the City. Ending LRT at Northfield Drive was viewed as a missed opportunity to serve an existing key destination and provide connectivity to the wider transit network.
k) The Business As Usual or Do Nothing option is not a viable option for the Region and should not be considered further.
   - BU11 is more expensive, has greater environmental impact to the community and would compromise the Region’s long term growth and quality of life objectives.

The Ottawa Loop

l) The Ottawa loop is a preferred alternative to a single alignment which would result in significant impacts to properties on one side of Ottawa Street in order to fit the LRT and accommodate the future widening of Ottawa Street.
   - The demolition of housing along either side of Ottawa would be disruptive to the neighbourhood in the short term and limit the long-term redevelopment potential of the area.
   - The implications of the Ottawa loop need to be understood in the context of a future plan for the area that identifies the extent and nature of change and its relationship to supporting both the LRT and the regional bus network.

m) A second station should be constructed at the south end of the loop to achieve the full potential of the Ottawa Loop as a both catalyst for new development and a key transfer point within the regional transit network.
   - A second station located to the south of the loop would place the entire Ottawa street corridor within a 5-10 minute walk of the LRT, supporting the area’s mixed use corridor designation and providing access to several large development sites south of the CN spur line and west of Borden.
   - Ottawa Street is an important GRT bus and LRT transfer point. As currently configured, the Charles Street station at Borden Avenue requires eastbound LRT users to walk a block to transfer between the GRT bus network. The addition of a new bi-directional LRT station at the intersection of Ottawa Street and the CN Huron Park Spur would improve walking access to LRT and create a consolidated transfer point between GRT Buses and the LRT.

Enhancing integration between transit systems

n) The integration of LRT with other modes of transit at the Terminus locations needs to be resolved within an understanding of the long-term development and place-making potential of each station area.
   - The terminus locations need to be understood and planned to be urban places with integrated transit services and development. In this condition, buildings could be used to help bridge the gap and/or enhance connections between services.
5.0 ADDITIONAL MESSAGES

q) The development of a full BRT system with the intent of converting to LRT over time will result in a costly retrofit and loss of ridership during the period of conversion.

r) Further work should be conducted to quantify the true costs and benefits of the RT investment and investigate alternative methods of financing the project.

• It is understood that the envisaged population, household and business growth and subsequent uplift in tax base resulting from an investment in RT has not been included in calculations of tax increase per household. This has resulted in a worst case scenario being presented. The calculation of these impacts may aid political and public understanding of the true cost, and benefits of an investment in LRT.

o) The region’s preferred option of an alignment through the Hydro corridor terminating at the current site of the GRT terminal is the preferred option at Fairview Park Mall.

• The ability for the hydro corridor route to facilitate a seamless connection with the aBRT and existing bus network, its potential to connect riders with the mall and its ability to capture the higher density residential uses north of the corridor make the route a preferred choice over the Courtland Avenue/Fairway Road alignment.

p) At Conestoga Mall, explore the implications of a side running LRT which would bring the LRT platform adjacent to the bus station and facilitate the integration of the LRT platform with bus facilities.

• Without a long-term plan for station areas, issues such as ownership and compatibility with interim uses will drive decision-making and result in solutions that are temporary at best and at worst inhibit the long-term development potential of each station area.

• The needs of the passenger should be a primary consideration in transit station and terminus planning. Terminus points should connect with the destination or interchange point as seamlessly and conveniently as possible and be designed to provide a high quality passenger environment.
An investigation into alternative financing and construction methods such as P3 or design build may identify additional opportunities to finance the project at less impact to the region.

s) The Region should not be surprised, or disheartened, that it is unable to deliver the full LRT system ultimately envisaged from day one.

• All transit systems are built in phases from areas of greatest ridership demand to areas of developing demand. The development of an LRT system in a series of phases, delivered over time and as demand and funding allow, is entirely normal and to be expected.

• Examples which demonstrate this phased approach to the implementation of LRT include Edmonton, Calgary, Vancouver and Portland.

i) Until ridership demand increases in Cambridge, aBRT will provide excellent service, in a financially prudent manner, that is well matched to the developing nature of Cambridge’s transit market.

• Current patterns of land use, including overall lower densities, longer running distances between destinations and the poor pedestrian environment of the Cambridge alignment create challenges to the introduction of LRT in the short term. In addition, ridership analysis indicates that 70% of total ridership will be generated north of Fairview Mall and 30% south.

• It is considered premature to extend LRT to Cambridge until the community increases population and jobs within station areas.

• The Region should continue to work with Cambridge to identify reasonable density and land use targets that would support the introduction of LRT in the future.
APPENDIX 1: THE 10 RAPID TRANSIT IMPLEMENTATION OPTIONS

**OPTION L1** 14km of LRT from Conestoga Mall to Ottawa St. 22km of aBRT from Ottawa St. to Ainslie Bus Terminal

<table>
<thead>
<tr>
<th>$644 Million</th>
<th>Annual Costs</th>
<th>Riders #s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provincial:</td>
<td>$500 Million</td>
<td>2016: 12.5 Million</td>
</tr>
<tr>
<td>Federal:</td>
<td>$215 Million</td>
<td>2021: 6.0 Million</td>
</tr>
<tr>
<td>Region:</td>
<td>$129 Million</td>
<td>2016: 1.5 Million</td>
</tr>
</tbody>
</table>

**OPTION L2** 17km of LRT from Conestoga Mall to Block Line Rd. 19km of aBRT from Block Line Rd. to Ainslie Bus Terminal

<table>
<thead>
<tr>
<th>$770 Million</th>
<th>Annual Costs</th>
<th>Riders #s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provincial:</td>
<td>$500 Million</td>
<td>2016: 13.6 Million</td>
</tr>
<tr>
<td>Region:</td>
<td>$243 Million</td>
<td>2016: 1.3 Million</td>
</tr>
</tbody>
</table>

**OPTION L3** 19km of LRT from Conestoga Mall to Fairview Park Mall 17km of aBRT from Fairview Park Mall to Ainslie Bus Terminal

<table>
<thead>
<tr>
<th>$818 Million</th>
<th>Annual Costs</th>
<th>Riders #s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provincial:</td>
<td>$500 Million</td>
<td>2016: 13.7 Million</td>
</tr>
<tr>
<td>Federal:</td>
<td>$258 Million</td>
<td>2021: 4.1 Million</td>
</tr>
<tr>
<td>Region:</td>
<td>$258 Million</td>
<td>2016: 1.5 Million</td>
</tr>
</tbody>
</table>
APPENDIX 1: THE 10 RAPID TRANSIT IMPLEMENTATION OPTIONS
OPTION L7  
17km of LRT from Northfield Dr. to Fairview Park Mall 
17km of abRT from Fairview Park Mall to Ainslie Bus Terminal

$773 Million  
Annual Costs  
Riders #s
Provincial: $500 Million  
2016: 13.8 Million  
2021: 7.5 Million
Federal: $200 Million  
2016: 8.7 Million  
2021: 14.7 Million
Region: $215 Million  
2016: 6.7 Million  
2021: 10.1 Million

OPTION L8  
22km of LRT from Northfield Dr. to Sportsworld Dr. 
12km of abRT from Sportsworld Dr. to Ainslie Bus Terminal

$922 Million  
Annual Costs  
Riders #s
Provincial: $500 Million  
2016: 15.8 Million  
2021: 9.4 Million
Federal: $250 Million  
2016: 10.6 Million  
2021: 16.0 Million
Region: $372 Million  
2016: 6.9 Million  
2021: 19.4 Million

OPTION L9  
39km of LRT from St. Jacobs' Farmers Market to Ainslie Bus Terminal

$1,550 Million  
Annual Costs  
Riders #s
Provincial: $500 Million  
2016: 19.8 Million  
2021: 9.2 Million
Federal: $750 Million  
2016: 16.6 Million  
2021: 18.0 Million
Region: $550 Million  
2016: 6.3 Million  
2021: 18.0 Million
APPENDIX 1: THE 10 RAPID TRANSIT IMPLEMENTATION OPTIONS

OPTION B10  39km of BRT from St. Jacobs' Farmers Market to Ainslie Bus Terminal

<table>
<thead>
<tr>
<th>$702 Million</th>
<th>Annual Costs</th>
<th>Riders #s</th>
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<tbody>
<tr>
<td>Provincial: $300 Million</td>
<td>2016</td>
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<tr>
<td>Federal: $34 Million</td>
<td>2020</td>
<td>8.0 Million</td>
</tr>
<tr>
<td>Region: $108 Million</td>
<td>2021</td>
<td>14.9 Million</td>
</tr>
</tbody>
</table>
Map of Option L1 with LRT from Conestoga Mall to Ottawa Street and aBRT from Ottawa Street to the Ainslie Street Transit Terminal
Map of Option L3 with LRT from Conestoga Mall to Fairview Park Mall and aBRT from Fairview Park Mall to Ainslie Street Transit Terminal
Map of Option L9 with LRT from Conestoga Mall to the Ainslie Street Transit Terminal
RECOMMENDATION:

THAT the Regional Municipality of Waterloo enter into a Consulting Services Agreement with GHD Inc., of Markham, Ontario to provide consulting services for the Asset Management Implementation Project for the Transportation and Environmental Services Department, at an upset fee limit of $3,290,193.50 plus applicable taxes.

SUMMARY:

The Region recognizes the importance of Asset Management (AM) as identified in one of its current Strategic Plan goals entitled Infrastructure. The goal is to “provide high quality infrastructure and asset management to meet current needs and future growth”. Asset Management is currently part of the duties of each operating Division within the Transportation and Environmental Services Department (TES). Since the infrastructure owned and operated by the Transportation and Environmental Service Department (Transportation (Roads and Airport), Water Services and Waste Management Divisions) represents the vast majority of assets owned by the Region with a current replacement value of $4.1 billion (Appendix A), the goal of this Consultant assignment is to implement a strategic infrastructure plan that includes a high standard of asset management for the Department and Divisions within TES.

In 2009, the Transportation and Water Services Divisions completed separate AM Gap Analysis and Assessment studies. Based on recommendations from these studies, Region’s staff identified benefits to the TES Department to implement AM not only at a Divisional level but also at the Departmental level.

This project will be undertaken in four phases; Phase 1 includes the completion of the Gap Analysis and Assessment studies for the Airport Section within the Transportation Division and the Waste Management Division; Phase 2 includes the implementation of AM best practices identified in Phase 1 of the project and the previously approved Gap Analysis and Assessment studies completed for the Transportation (Roads) and Water Services Divisions including Asset Pilot Projects and Asset Management Plan #1; Phase 3 includes the Selection, Procurement and Implementation of Asset Management Systems; and, Phase 4 includes the preparation of a Continuous Improvement Plan and Asset Management Plan #2 within TES with the goal of evolving from Basic Asset Management to Advanced Asset Management.
It should be noted; Phase 3 of the Asset Management Implementation Project is not included in this Consultant assignment but will be defined further with an implementation plan, schedule and budget during Phase 2 of this project.

The Region’s Consultant Selection team have concluded that GHD’s proposal and work plan has met the Region’s requirements, that it is appropriate for the scope of this project and that the upset fee is competitive. Based on this proposal, work plan and GHD’s past performance during the Gap Analysis and Assessment studies for Transportation and Water Services Divisions, the Project Team recommends that GHD be awarded this assignment for a total upset fee of $3,290,193.50 plus applicable taxes.

Subject to Council’s approval of this consulting assignment, it is anticipated that the project will be completed by late 2013.

REPORT:

Background

The Region currently builds, owns and maintains transportation (road and airport), water, waste water and waste management infrastructure that supports the areas economy and quality of life (Appendix A includes a detailed listing on the TES Department infrastructure assets). For the past 25 years, the Region as well as other municipalities have been caught in a fiscal squeeze caused by growing responsibilities and reduced revenues. These responsibilities include rapid growth, more stringent environmental and regulatory requirements, public demands for high levels of service, aging infrastructure and increased exposure to liability and risk.

Due to the above factors, the Region has in a number of instances deferred investment in TES assets, resulting in infrastructure deterioration, adding to the infrastructure deficit, reduced levels of service and/or increased risk. For example, the current Transportation Roads infrastructure deficit is $265 million and based on the current long term funding strategy approved by Council, the infrastructure deficit is expected to be $240 million in 2034 (assuming a 3% construction inflation factor moving forward). As this deficit continues, maintenance will continue to be delayed, assets will reach the end of their intended service life, and repair and replacement costs will escalate. It is now recognized by all municipalities that deferring investment on infrastructure assets is not sustainable over the long term.

Recently, many municipalities have begun to adopt practices to set and meet required levels of service and manage assets in a more cost effective manner, at acceptable levels of risk. Collectively known as Asset Management, the *International Infrastructure Management Manual* describes the key elements of this practice as:

- "Taking a lifecycle approach"
- *Developing cost-effective management strategies for the long-term*
- *Providing a defined level of service and monitoring performance*
- *Understanding and meeting the impact of growth through demand management and infrastructure investment*
- *Managing risks associated with asset failures*
- *Sustainable use of physical resources*
- *Continuous improvement in asset management practices.*
The goal of infrastructure asset management is to meet a required level of service, in the most cost effective manner, through the management of assets for present and future customers. A formal approach to the management of infrastructure assets is essential in order to provide services in the most cost-effective manner, and to demonstrate this to customers, investors and other stakeholders."

Implementing asset management practices typically includes the following:

- Enacting an Asset Management Policy that sets the broad framework for undertaking asset management in a structured and coordinated way across the organization as a whole;
- Improving the organization’s ability to manage its assets through implementation of the Asset Management Strategy that outlines the set of actions to be undertaken to enhance the organization’s asset management practices. Implementing the Strategy enables a better understanding of the full costs and risks to deliver the current levels of service and to compare the benefits, as perceived by the community, to these costs; and
- Preparing an annual Asset Management Plan that outlines the asset lifecycle activities and resources required to provide defined levels of service in the most cost effective way.

Current Status of TES Asset Management Practice

The Department has already made significant investment in developing asset management practices, including business processes, data, systems and staff competencies. In 2009, Transportation and Water Services Divisions within TES Department completed separate Asset Management Gap Analysis and Assessment studies. The output from these studies was a 2009 report: Transportation Infrastructure Management Program Review; and for the Water Services Division a 2010 report: Water Services Division Asset Management Assessment, which outline, the current status of asset management for these Divisions'.

Through a series of workshops and interviews with Division staff and others, the consultant team developed a comprehensive understanding of the Division’s current practices related to asset management and conducted a gap analysis between current practices and best appropriate practices (BAP). The results of this assessment are shown in Figure 1 below for the Transportation Division which illustrates the Division’s current and target ratings compared to the BAP. A similar assessment was completed for Water Services. It should be noted, the acceptable target rating applicable to the Region is generally lower than the BAP, as achieving the top BAP target rating may not necessarily provide the Region with the best return on investment from a risk, cost benefit or level of service perspective.
Figure 1

Region of Waterloo Transportation Division - Program Development Section
Asset Management Gap Analysis Summary

<table>
<thead>
<tr>
<th>Rating</th>
<th>Lifecycle Processes</th>
<th>Systems</th>
<th>Data</th>
<th>Asset Management Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BAP</td>
<td>Target</td>
<td>Current</td>
<td></td>
</tr>
</tbody>
</table>

Highlights of current accomplishments for these two Divisions include:

- Regional Council and senior management have shown support to implementing asset management principles in accordance with, **Strategic Plan Focus Area 5: Infrastructure provide high quality infrastructure and asset management to meet current needs and future growth**;
- A TES Department steering committee is in place which include members from Finance, Corporate Resources and Planning, Housing and Community Services Department;
- AM strategies were developed for the Transportation and Water Services Divisions in 2009/10;
- Over time, both Divisions have developed processes, supporting systems, and the roles to deliver the services for which they are responsible and to manage associated assets;
- Service standards related to regulatory compliance are defined and performance is reported;
- Current and future service demand and asset capacity are understood;
- Compliance with Public Services Accounting Board (PSAB) Tangible Capital Asset;
- Remaining life of most assets has been determined based on current condition;
Risk based approach is used to make decisions, even though applied informally;

The Capital Programming processes select and prioritize capital projects for the 10-year capital program based on needs including age and condition of assets;

The Divisions participate in Ontario Municipal Benchmarking Initiative (OMBI) Performance Measures benchmarking; and

Substantial investment has been made in data collection, storage and display of some asset types.

**Identified gaps include:**

- Asset Management Policy needs to be developed to provide the broad framework for undertaking asset management in a structured and coordinated way across the Department as a whole, including the organizational context and importance of asset management;
- Gap analysis and AM strategies have not been developed for waste management and the airport, leaving these service areas without a clear understanding of asset management best practices and the set of actions to be undertaken to enhance their asset management practices;
- In many cases, asset management practices have evolved intuitively and outside of a best practices framework, and are not standardized, coordinated, or formally documented;
- Levels of service should be better defined, linked to business drivers, and documented, except as related to regulatory compliance;
- Many assets are inventoried and valued for PSAB Tangible Capital Assets compliance at very high levels and more detail is needed for proper Asset Management;
- Remaining asset life has been determined based on current condition and age which may not be the imminent failure mode and is generally not predictive;
- Maintenance procedures are not optimized and are generally based on regulatory requirements or vendor recommendations;
- Knowledge management systems need to be developed to transfer knowledge on processes or assets among staff;
- Asset Management Plans need to be prepared to outline the asset lifecycle activities and resources required to provide defined levels of service, in the most cost effective way;
- The Capital Programming processes should include in the evaluation and validation of proposed projects. Risk and benefit cost lifecycle analysis and a confidence level approach;
- Asset hierarchies and data standards should be more comprehensive for all assets at the level required for informed decision-making; and
- A comprehensive Asset Management System Master Plan needs to be developed for the Department to guide effective procurement and management of shared data and information systems.

**Recommended TES AM Practice Enhancements**

Based on the gap analysis completed for the Transportation and Water Services Divisions, Region staff recognized that there are common elements in both Divisions and potential benefits to the TES Department to implement Asset Management not only at the Division level but also at the Departmental level. Some of the recognized benefits include economies of scale as well as a developing and implementing consistent processes and outputs relating to asset management within the TES Department and Divisions.

The Asset Management Implementation Project, subject to Council approval of this report, consists of four phases. A summary of the AM Implementation Project work plan and schedule is shown in Figure 2 below, followed by an overview of the objectives and benefits. A summary of the scope of work is detailed in Appendix B. Note that Phase 3 (Selection, Procurement and Implementation of an AM System) is not in the scope of this Consultant assignment but will be defined further with an
implementation plan, schedule and budget during Phase 2 of this project.

It should also be noted that Regional staff from all Divisions within the TES Department, Information Technology Services (ITS), Facilities and Fleet, Transportation Planning, Financial Services and Procurement and Supply Divisions and other Regional staff as required will be key participants in the project implementation project to ensure the project meets the Region’s standards and requirements.

**Figure 2**

<table>
<thead>
<tr>
<th>PHASE 1 – Gap Analysis &amp; Assessment for Airport &amp; Waste Mgmt</th>
<th>2011 Q1 Q2 Q3 Q4</th>
<th>2012 Q1 Q2 Q3 Q4</th>
<th>2013 Q1 Q2 Q3 Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Gap Analysis &amp; Assessment for Airport</td>
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<td></td>
<td></td>
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<tr>
<td>• Gap Analysis &amp; Assessment for Waste Mgmt</td>
<td></td>
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<tr>
<td>• Presentation to AM Steering Committee</td>
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<tr>
<th>PHASE 2 – Implementation of AM Best Practices</th>
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<th>2012 Q1 Q2 Q3 Q4</th>
<th>2013 Q1 Q2 Q3 Q4</th>
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</thead>
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<tr>
<td><strong>Section 1 – AM Planning &amp; Business Process Framework</strong></td>
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<tr>
<td>• Strategic AM Planning Framework &amp; Dept Processes</td>
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<tr>
<td>• Performance Measurement &amp; CI Framework &amp; Dept. Processes</td>
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<tr>
<td>• LoS, Failure Mode &amp; Risk Analysis</td>
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<tr>
<td>• Renewal Planning Processes &amp; Pilots</td>
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<tr>
<td>• Maintenance Planning Processes &amp; Pilots</td>
<td></td>
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<tr>
<td>• Capital Programming Framework, Processes &amp; Pilots</td>
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<thead>
<tr>
<th><strong>Section 2 – Data Registry &amp; Standards</strong></th>
<th>2011 Q1 Q2 Q3 Q4</th>
<th>2012 Q1 Q2 Q3 Q4</th>
<th>2013 Q1 Q2 Q3 Q4</th>
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<tbody>
<tr>
<td>• Data Registry &amp; Standards</td>
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<tr>
<td>• Information &amp; Data Management Systems Review</td>
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<thead>
<tr>
<th><strong>Section 3 – Organization &amp; People</strong></th>
<th>2011 Q1 Q2 Q3 Q4</th>
<th>2012 Q1 Q2 Q3 Q4</th>
<th>2013 Q1 Q2 Q3 Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Organizational Roles &amp; Responsibilities Review &amp; Strategy</td>
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<td>• Change Management &amp; Communication Strategy &amp; Plan</td>
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<tr>
<td>• Training &amp; Development Strategy &amp; Plan</td>
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<td>• Knowledge Management Strategy &amp; Plan</td>
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<th><strong>Section 4 – Asset Management Plan #1</strong></th>
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<th>2013 Q1 Q2 Q3 Q4</th>
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</thead>
<tbody>
<tr>
<td>• Transportation AM Plan</td>
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<tr>
<td>• Waster Services AM Plan</td>
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<tr>
<td>• Airport AM Plan</td>
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<tr>
<td>• Waste Management AM Plan</td>
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<tr>
<td>• T&amp;ES Department AM Plan</td>
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<table>
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<tr>
<th>PHASE 3 – Selection, Procurement &amp; Implementation of AM System</th>
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<th>2012 Q1 Q2 Q3 Q4</th>
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<table>
<thead>
<tr>
<th>PHASE 4 – Continuous Improvement Plan &amp; AM Plan #2</th>
<th>2011 Q1 Q2 Q3 Q4</th>
<th>2012 Q1 Q2 Q3 Q4</th>
<th>2013 Q1 Q2 Q3 Q4</th>
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<tbody>
<tr>
<td>• Continuous Improvement Plan</td>
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<tr>
<td>• Asset Management Plan #2</td>
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</table>
# Overview of Objectives and Benefits

<table>
<thead>
<tr>
<th>PHASE / Section</th>
<th>Objectives</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHASE 1 Gap Analysis and Assessment for Airport and Waste Management</td>
<td>The objectives of this first phase of the Project are to understand the current status of the Airport Section’s and Waste Management Division’s AM practices using the principles employed in the similar studies completed for the Transportation and Water Services Divisions.</td>
<td>Benefits include a common understanding of asset management best practices by the entire TES Department, and prioritization of enhancement of practices for the Airport Section and Waste Management Division.</td>
</tr>
<tr>
<td>PHASE 2 Implementation of AM Best Practices including Asset Pilot Projects and Asset Management Plan #1</td>
<td>The objectives of this phase are to enhance the Department’s asset management practices as outlined in the Asset Management Strategy to enable a better understanding of the full costs and risks to deliver the current levels of service, and enable improved decision making considering all viable options.</td>
<td>Benefits include improved governance and accountability, enhanced service management and customer satisfaction, improved financial efficiency, and more transparent and sustainable decision-making.</td>
</tr>
</tbody>
</table>

### Section 1 AM Planning and Business Process Framework

The objectives of this section of the Project are to develop the “top down” Department wide common frameworks and processes for Asset Management, and then to implement them from the “bottom up” on three pilot asset groups for each of the Transportation, Water Services, Airport and Waste Management service groups and, at the same time, building practices to suit the specific asset groups.

Benefits include development, documentation and implementation of standardized, coordinated processes based on best practice AM principles to set and meet required levels of service and manage assets in a cost effective manner, at acceptable levels of risk.

### Section 2 Data Registry and Standards

The objectives of this section are to gather, review, and document current AM system processes, workflows and data; and undertake an analysis and definition of the users’ perceived future needs.

A procurement and implementation plan will be prepared to provide recommendations for acquiring and implementing a solution, including proposed budget, process impacts, data management strategies, and project management requirements.

Benefits include enabling support for asset management through technology, including the ability to store, manipulate and retrieve timely, accurate, valid, reliable and complete data through enterprise systems. This enterprise system will create efficiencies by ensuring the correct number of systems that need to be maintained by the Region.
<table>
<thead>
<tr>
<th>PHASE / Section</th>
<th>Objectives</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section 3</strong></td>
<td>The objectives of this section of the Project are to identify required organizational and staffing changes to support asset management best practices, to develop a change management and communication strategy and plan for staff, Council and the community to build a common understanding of principles and ensure consistent implementation of asset management practices across the Department, develop an asset management training and development program, and a knowledge management strategy.</td>
<td>Benefits include a more successful and sustainable implementation of the enhanced asset management practices.</td>
</tr>
<tr>
<td><strong>Organization and People</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Section 4</strong></td>
<td>The objective of this section of the Project is to develop an initial asset management plan for managing the Department's transportation, water services, waste management and airport assets based on existing information and basic asset management practices, and including strategic goals, asset portfolio, performance standards, demand forecast, asset lifecycle activities, and cash flow forecasts.</td>
<td>Benefits include more transparent and sustainable decision-making that considers the entire asset portfolio and all viable options, and provides higher confidence that the solutions guide investment in the right work, at the right time, at the lowest lifecycle cost.</td>
</tr>
<tr>
<td><strong>Asset Management Plan #1</strong></td>
<td></td>
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<tr>
<td><strong>PHASE 4</strong></td>
<td>The objectives of this final phase of the Project are to develop a continuous improvement process for ongoing development of asset management capacity within the Department, and to develop the second asset management plan for managing the Department's transportation, water services, waste management and airport assets based on an expanded set of assets and the more advanced asset management practices implemented since commencement of the Project.</td>
<td>Benefits include more transparent and sustainable decision-making that considers the entire asset portfolio and all viable options, and provides higher confidence that the solutions guide investment in the right work, at the right time, at the lowest lifecycle cost.</td>
</tr>
<tr>
<td><strong>Continuous Improvement Plan and AM Plan #2</strong></td>
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</table>
In summary, the expected benefits of the multi-year Asset Management Implementation Project are as follows:

- Cost Savings: Optimisation of maintenance expenditure and asset lifecycle activities
- Improved Governance and Accountability: Demonstrating Sustainable service delivery, Transparently balancing service/price/quality trade-offs, Published performance and financial measures, Clear audit trail for decisions taken and risk accepted
- Enhanced Service Management and Customer Satisfaction: Improved performance and control of service delivery, Improved understanding of service requirements, Formal agreement with users on the service levels, A holistic approach to business and asset management
- Improved Risk Management: Knowing the probability and consequences of asset failure, Knowing the criticality and priority of assets, Having formal risk management strategies in place
- Improved Financial Efficiency: Improved decision-making based on costs and benefits of alternatives, Prioritization of investments and lifecycle activities, Justification for long term funding requirements, Recognition of all costs of owning/operating assets

Consultant Selection

Due to the complexity and new concepts involved in the Implementation of Asset Management for public utilities, TES staff agreed in discussion with staff from the Procurement and Supply Services Division of the Finances Department to split the Consultant selection in two phases. The first phase consisted of Pre-Qualification of Consultants with the pre-qualified Consultants required to meet minimum technical criteria in order to be short listed. The second phase consisted of submission of detailed proposals by the pre-qualified Consultants including submission of a detailed work plan and schedule, and upset fee budget for completion of the project. A two envelope approach was used for the second phase submission. The first envelope consisted of the work plan and schedule, and the second envelope consisted of the upset fee budget, which would only be opened upon completion of the detailed review and evaluation of the proposals based on Quality and Equity Factors.

In July 2010, a Request for Pre-Qualification was advertised in the Kitchener-Waterloo Record, Ontario Public Buyers Association, Biddingo, and the Region’s Procurement and Supply Services web site.
In September 2010, three Consultants submitted a proposal for the Request for Pre-Qualification. All Consultants met the Pre-Qualification requirements, and were requested to submit detailed proposals for the second phase of the Consultant selection process. The three pre-qualified Consultants were:

- Associated Engineering Limited;
- GHD Inc.; and
- Stantec Consulting Limited.

The staff project team involved in the review of the proposals and upset fee budget consisted of:

Katrina Howald, Project Manager, Information Technology  
David Peplinski, Business Analyst, Information Technology  
Robert Gallivan, Manager, Transportation Program Development, Transportation  
Shawn Buckley, Senior Transportation Infrastructure Engineer, Transportation  
Kevin Campbell, Manager, Airport Operations, Transportation  
Jon Arsenault, Manager, Engineering and Programs, Waste Management  
Richard Pinder, Senior Project Manager, Asset Management, Water Services  
Jorge Cavalcante, Manager, Engineering and Planning, Water Services  
Charles Whitlock, Director, Procurement and Supply Services (Observer), Finance

Consultants were initially evaluated on their proposal based on Quality and Equity Factors listed below. Upon evaluation of the Quality and Equity Factors it was the intent of Region staff to open the second envelope and evaluate the Price Factor.

Consultants were evaluated based on the following weighted evaluation factors:

1. Quality Factors (80%)
   - Project Understanding and Approach 25%  
   - Project Director and Project Managers 25%  
   - Project Support Staff 20%  
   - Firm’s Experience on Similar Projects 10%

2. Equity Factors (5%)
   - Current Regional Workload 3%  
   - Local Office 2%

3. Price Factor (Upset Fee Budget) 15%

The number of hours proposed by each Pre-Qualified Consultant for undertaking this assignment was within ±5% of the average number of hours for all three submissions. Based on the results of the Quality and Equity Factors for the three Pre-Qualified Consultants, the Consultant Selection Project Team unanimously agreed that the project team, approach and work plan presented by GHD was clearly superior to the submissions from the other two Consultants.

The hourly price provided by GHD for its team was compatible with the price provided by GHD on previous Consultant assignments with Transportation (Roads) and Water Services Divisions. GHD’s upset fee for the Transportation and Environmental Department Asset Management Implementation project is $3,290,193 plus applicable taxes (Appendix B includes a detailed breakdown of the Consultants upset fee).
Scope of Work

For this assignment the Consultant will perform the following:

- Phase 1: complete Gap Analysis and Assessment Studies for the Airport Section and Waste Management Division similar to the work already completed for Transportation (Roads) and Water Services Divisions;
- Phase 2: develop and implement Asset Management Best Practices for TES including implementation of asset pilot projects for three assets in each Division and preparation of the initial Asset Management Plan for TES;
- Phase 4: prepare a Continuous Improvement Plan for Asset Management within TES with the goal of evolving from Basic Asset Management to Advanced Asset Management, preparation of a subsequent Asset Management Plan for TES and planning for the completion of future Asset Management Plans for TES.

Phase 3 requirements will be set in Phase 2 of this work; however; implementation will be part of a separate assignment.

Schedule

Subject to Council’s approval of this consulting assignment, it is anticipated that the project will begin in early 2011 and be completed by late 2013.

CORPORATE STRATEGIC PLAN:

The project meets the Corporate Strategic Plan Focus Area 5: “Provide high quality infrastructure and asset management to meet current needs and future growth” regarding the following Strategic Objectives:

1) Optimize the use of existing infrastructure and ensure it is adequately maintained; and
2) Provide infrastructure needed to accommodate planned growth.

FINANCIAL IMPLICATIONS:

Ten Year Capital Programs for the Transportation and Environmental Services Department Divisions prior to 2011 included funds for infrastructure inspections, for completing preliminary work for the implementation of Asset Management such as PSAB Tangible Capital Assets compliance, Gap Analysis and Assessment studies, and other related work. Based on the results of the Gap Analysis and Assessments for the Transportation (Roads) and Water Services Divisions in 2009 and 2010 and the Airport Section and Waste Management Division requirements as part of this project, funds have been allocated for the implementation of Asset Management in the Council approved 2011 Ten Year Capital Programs.

The 2011 Ten Year Capital Programs for the Transportation, Water Services and Waste Management Divisions includes a combined total funding of $3,400,000 for this project over the years 2011 to 2013 and will be funded from the Roads Rehabilitation, Water and Development Charge Reserve Funds and debentures. This will be adequate funding to cover GHD’s upset fee of $3,290,193.50 plus applicable taxes (Appendix C includes a detailed breakdown of the Consultants upset fee).
OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

NIL

ATTACHMENTS

Appendix A – TES Departmental Infrastructure Assets
Appendix B – Detailed Summary of the Scope of Work
Appendix C – Breakdown of Consultant’s Upset Fee

PREPARED BY: Robert Gallivan, Manager, Transportation Program Development
Richard Pinder, Senior Project Engineer, Asset Management

APPROVED BY: Thomas Schmidt, Commissioner, Transportation and Environmental Services
In the Region infrastructure assets are considered stationary systems (or networks) that serve the community where the system as a whole is intended to be maintained indefinitely to a specified level of service by the continuing replacement and refurbishment of its components.

The infrastructure assets in the TES Department consist of the following (excluding land and fleet):

**Water Services ($1.9 billion)**
- 116 wells
- 17 water treatment plants
- 36 storage facilities
- 38 pumping stations
- 13 waste water treatment plants
- 6 sewage pumping stations
- 2 biosolids storage lagoons
- 1 biosolids transfer facility
- 218 km of Regional water mains
- 73 km of co-owned water mains

**Waste Management ($0.1 billion)**
- 2 waste management facilities
- Recycling centre
- Maintenance buildings
- 2 landfill gas collection system
- Retention ponds
- WRESTRC

**Transportation ($2.1 billion)**

**Roads ($2.05 billion)**
- Approximately 700 kilometres of road
- 169 bridges
- 478 signalized intersections
- 7,543 street lights
- Approximately 15 kilometres of noise walls
- 11 maintenance operations buildings

**Airport ($0.05 billion)**
- Approximately 360,000 square meters of asphalt which consists of 2 runways, 5 taxiways, 5 Aircraft parking aprons and a series of groundsides roads and vehicle parking lots
- 49,000 metres storm sewer piping network
- 500 edge lights, 40 guidance signs, 4 precision approach path indicator (PAPI) systems, 2 approach lighting systems, 8 constant current regulators including approximately 28,392 metre of underground cabling including 2 emergency generators and a computerized control system located in a dedicated field electric centre
- Approximately 2,233 metres of overhead and 442 metres of underground 3 phase hydro distribution including 13 pole mount transformers, 5 pad mount transformers, 3 load break switches and 46 hydro consumption meters
- 32 street lights and light standards including underground cabling
- Approximately 2,258 meters of underground fibre optic
• Telecommunication cabling.
• 5 administration and maintenance operations buildings
• 32 camera CCTV security system including cabling and digital video recording system
• 24,000 metre security / wildlife fencing network including 50 security gates
• 2,600 metre water pipeline network including 22 gate valves, 8 curb stops and 13 fire hydrants.
• 1,700 metre sanitary pipeline including 21 sanitary manholes and 1 pumpingstation.
PHASE 1: Gap Analysis and Assessment for Airport and Waste Management

The scope of work includes separate gap analysis and assessments for the Airport Section and Waste Management Division, including:

- Definition of business drivers;
- Identification of current practices through workshops and interviews;
- Conducting a gap analysis between current and best practices;
- Determining and documenting enhancement roadmaps; and
- Presentation to the AM Steering Committee.

PHASE 2: Implementation of AM Best Practices

The scope of work includes enhancing TES asset management practices including:

- Developing an Asset Management Policy;
- Building Department-wide frameworks and processes;
- Building and piloting asset specific processes;
- Building data registries;
- Making recommendations on systems for implementation in Phase 3;
- Developing the supporting organization and people;
- Developing the initial asset management plan for managing the Department’s assets; and
- Documentation and presentation to the AM Steering Committee at key decision points.

This phase comprises the bulk of the work on the Project and has been subdivided into four sections.

Section 1: AM Planning and Business Process Framework

The scope of work includes both developing top down Department-wide frameworks and processes, and developing and piloting bottom up asset specific processes including documenting asset attribute information.

- Developing the top down Department-wide frameworks and processes for Strategic AM Planning, Performance Measurement and Continuous Improvement, and Capital Programming includes:
  - Reviewing existing documents and information, developing the frameworks;
  - Reviewing and finalizing the framework with stakeholders by consensus;
  - Developing Department-wide processes at a series of four workshops;
  - Documenting the work; and
  - Reviewing and revising it throughout the Project as more detailed bottom up processes are developed and piloted.

- Developing and piloting the bottom up asset specific processes for each of the Transportation, Water Services, Airport and Waste Management service groups includes developing, piloting, reviewing and finalizing the bottom up asset specific processes for Levels of Service, Failure Mode and Risk Analysis, Renewal Planning, Maintenance Planning and Capital Programming.
Section 2: Data Registry and Standards

The scope of work includes both developing a data registry and data standards, and conducting an information and data management systems review.

- The development of the data registry and data standards for each of the Transportation, Water Services, Airport and Waste Management service groups includes:
  - Reviewing existing documents and information;
  - Developing an asset data map and outlining responsibilities;
  - Developing asset hierarchy structures;
  - Developing data standards;
  - Assessing asset gaps and developing a data strategy; and
  - Developing the asset register for pilot assets.

- The information and data management systems review includes:
  - Assessing asset management information practices and system architecture;
  - Assessing asset management systems including developing a systems functional requirements table; and
  - Developing an asset management systems procurement and implementation plan.

Section 3: Organization and People

The scope of work includes:

- Conducting an organizational roles and responsibilities review and developing a strategy;
- Developing a change management and communication strategy and plan;
- Developing a training and development strategy and plan; and
- Developing a knowledge management strategy and plan.

Section 4: Asset Management Plan #1

The scope of work includes preparation of asset management plans for each of the service groups, plus a Department-wide summary Plan. Specific tasks include:

- Requesting, gathering and reviewing existing asset information for the asset register including:
  - PSAB PS 3150 TCA inventories, useful lives, and valuations;
  - Levels of service including goals and objectives, customer feedback from surveys and call centers, and current and future levels of service;
  - Growth and demand including future demand of services related to growth;
  - Lifecycle analysis including failure predictions, risk assessments, and asset remaining life; and
  - Lifecycle management strategies including treatment types and timing to renew the assets.

- Computation of long term (100 year) funding and short term (10 year) investment needs;
- Determination of a confidence level rating, documentation;
- Review of the resultant AM Plans with each of the service groups; and
- Review and modification of the Strategic AM Planning Framework and Processes for development of Asset Management Plans, including roles and responsibilities.
PHASE 4: Continuous Improvement Plan and AM Plan #2

The scope of work includes:

- Development of a continuous improvement framework and continuous improvement plans for each of the Transportation, Water Services, Airport and Waste Management service groups; and
- Preparation of the Department’s second set of asset management plans as described above.
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<td>Phase 3 - Not Part of this Consultant Assignment</td>
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<td>Phase 4 - Continuous Improvement Plan for Asset Management and 2nd Asset Management Plan</td>
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<td><strong>Total Consultant Upset Fee</strong></td>
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REGION OF WATERLOO
TRANSPORTATION AND ENVIRONMENTAL SERVICES
Design and Construction

TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 12, 2011

FILE CODE: T04-20, 5250, 5542

SUBJECT: FREDERICK STREET IMPROVEMENTS, LANCASTER STREET TO RIVER ROAD, CITY OF KITCHENER – APPROVAL OF PROJECT

RECOMMENDATION:

a) THAT the Regional Municipality of Waterloo approve the proposed improvements on Frederick Street (Regional Road #6) from Lancaster Street to River Road as outlined in Report E-11-024.

b) Direct staff to file the Notice of Completion for this Class Environmental Assessment by means of advertisement in the local newspaper and mailings to the adjacent property owners, tenants and agencies and place the Environmental Assessment Study files on the public record for a period of 30 days.

c) THAT the Regional Municipality of Waterloo amend Traffic and Parking By-law 06-072, as amended, to:

Add to Schedule 24, Reserved Cycling Lanes, Anytime, on both sides of Frederick Street (Regional Road 6) from East Avenue to Bruce Street;

Add to Schedule 20, Centre Lane: Two-Way Left-Turns, on Frederick Street (Regional Road 6) from 67m East of Edna Street to 67m West of Bruce Street;

Remove from Schedule 4, No Stopping, 11:30am to 12:30pm., 4:30pm to 5:30pm., Monday to Friday, on both sides of Frederick Street (Regional Road 6) from Weber Street ( Regional Road 8) to East Avenue;

Add to Schedule 4, No Stopping, 11:30am to 12:30pm., 4:30pm to 5:30pm., Monday to Friday, on the south side of Frederick Street (Regional Road 6) from Weber Street (Regional Road 8) to East Avenue;

Add to Schedule 4, No Stopping, 11:30am to 12:30pm., 4:30pm to 5:30pm., Monday to Friday, on the north side of Frederick Street (Regional Road 6) from Weber Street (Regional Road 8) to 22m east of Gordon Avenue; and

Add to Schedule 4, No Stopping, 11:30am to 12:30pm., 4:30pm to 5:30pm., Monday to Friday, on the north side of Frederick Street (Regional Road 6) from 66m east of Gordon Avenue to East Avenue in the City of Kitchener as outlined in Report E-11-024 dated April 12, 2011.
SUMMARY:

The Region of Waterloo and the City of Kitchener are planning roadway improvements on Frederick Street between Lancaster Street and River Road in the City of Kitchener. The project is being undertaken as a Schedule ‘B’ project under the provincial “Municipal Class Environmental Assessment” Act. Frederick Street is an arterial Regional Road from the Highway 7/85 interchange ramps at Bruce Street and Edna Street into the Kitchener downtown core. From Bruce Street to River Road, Frederick Street is under City of Kitchener jurisdiction. (Please refer to the Key Plan in Appendix A for project limits.) Frederick Street between Lancaster Street and Bruce Street is in need of resurfacing/reconstruction to replace the deteriorated pavement surface.

As part of this project, a change to the existing 4 lane configuration is being recommended on Frederick Street between East Avenue and River Road. Since traffic volumes are relatively low on this section of Frederick Street and since the traffic projections for the future show minimal growth adding to the traffic demand, it is recommended to reduce the number of lanes between East Avenue and River Road from the current four lanes to three lanes of traffic (two through lanes with left turn lanes at intersecting roadways and a two-way left turn lane from Edna Street to River Road). The addition of cycling lanes is also recommended as the existing roadway platform width supports the ability to provide cycling lanes if converted from 4 to 3 traffic lanes.

A Public Consultation Centre (PCC) was held on September 22nd, 2010 to present the afore-mentioned Project Team’s recommended improvements on Frederick Street. Comments received at the Public Consultation Centre included: general support for the Project Team’s recommended alternative, support for maintaining the existing westbound right turn lane at Gordon Avenue (which acts as a drop-off area for senior citizens), support for the removal of the eastbound right turn lane at Lancaster Street, questioning the effectiveness and use of pedestrian refuge islands, concern about the ending of the cycling lane at East Avenue and the need for signage to warn cyclists accordingly, reduced snow storage in the reduced boulevard area near the East Avenue intersection, and both support and concern for the lane reduction from 4 lanes to 3 lanes. The Project Team responses to these comments are included in the body of this report.

Based on the public comments received and the technical considerations for this project, the Project Team is recommending that the previously described plans as presented at the September 22, 2010 PCC be approved by Regional Council for construction in 2012 at an estimated cost of $2.8 million.

In addition, the following resolution was passed at the November 15, 2010 City of Kitchener Council meeting:

"That the Region of Waterloo’s execution of a Schedule B Class Environmental Assessment on behalf of the City of Kitchener for a road diet on Frederick St between Bruce Street and River Road be endorsed."

A road diet is a term that describes removing travel lanes from a roadway and utilizing the space for other uses and travel modes. Potential benefits include reduced vehicle speeds; improved mobility and access for pedestrians and cyclists; reduced collisions and injuries; and improved livability and quality of life.
REPORT:

1.0 Background

The Region of Waterloo and the City of Kitchener are planning roadway improvements on Frederick Street (Regional Road #6) between Lancaster Street and River Road in the City of Kitchener. The project is being undertaken as a Schedule ‘B’ project under the Class Environmental Assessment process. Frederick Street is an arterial Regional Road from the Highway 7/85 interchange ramps at Bruce Street and Edna Street into the Kitchener downtown core. The section of Frederick Street between Lancaster Street and Bruce Street is scheduled for roadway improvements in 2012. From Bruce Street to River Road, Frederick Street is under City of Kitchener jurisdiction. The City of Kitchener does not require any improvement works on its section of Frederick Street in 2012. (Please refer to the Key Plan in Appendix “A” for project limits.)

Frederick Street between Lancaster Street and East Avenue is a two lane roadway. The section of Frederick Street between East Avenue and River Road is a four lane roadway. Frederick Street, between Lancaster Street and Edna Street requires improvements to replace the existing deteriorated asphalt pavement, concrete curb repairs and localized sidewalk repairs. The section of Frederick Street between Edna Street and Bruce Street requires full roadway reconstruction, replacement of the concrete curbs and gutters and sidewalks on both sides of the road and replacement/repair of some key sections of underground infrastructure (sanitary sewers and storm sewers). At this time the City of Kitchener does not have roadway improvements scheduled on its section of Frederick Street between Bruce Street and River Road. Staff from the City of Kitchener advises that any lane re-striping on the City section of roadway would be done in conjunction with any future City roadway improvements.

A Project Team was established to direct this project and includes staff from the Region of Waterloo and the City of Kitchener as well as former City of Kitchener Councillor John Smola.

2.0 Project Issues

2.1 Traffic Volumes, Collisions and Operational Issues

Traffic counts conducted by the Region of Waterloo in 2008 /2009 at the Frederick Street at East Avenue and Frederick Street at River Road intersections reveal that the existing 2010 two-way traffic (in both directions - eastbound and westbound) are approx 1260 vehicles in the PM peak hour east of East Avenue to Bruce Street and 900 vehicles in the PM peak hour west of River Road to Bruce Street.

The section of Frederick Street from East Avenue to River Road, with four lanes, has a capacity that is far greater (approx 2600 vehicles/hour) than needed for the existing and future traffic flow. The Project Team reviewed a change to the existing 4 lane configuration on Frederick Street between East Avenue and River Road since traffic volumes are relatively low on this section of Frederick Street and since the traffic projections for the future show minimal growth adding to the traffic demand.

The intersections of Frederick Street at Edna Street and Frederick Street at Bruce Street currently experience higher than usual rear-end type collisions. The provision of dedicated opposing left turn lanes at these two intersections will help to reduce this collision problem.
2.2 Cycling, Pedestrian and Transit Needs

In 2004, Regional Council approved the Regional Cycling Master Plan. Frederick Street was not identified as a core or long term on-road cycling facility in this plan. However, provision of an on-road cycling facility on Frederick Street between East Avenue and River Road would provide a convenient link to the City of Kitchener’s proposed future cycling networks on East Avenue and on River Road.

Frederick Street is recognized as providing a key connection to the downtown core of Kitchener. The Project Team considered options to address both pedestrian and cyclists needs. The addition of cycling lanes between East Avenue and River Road was also reviewed as the existing roadway platform width supports the ability to provide cycling lanes if converted from 4 to 3 traffic lanes.

There is also a need to provide for improved pedestrian crossings on Frederick Street to enhance the pedestrian environment.

Also, GRT staff has identified a need for upgraded bus stops and added bus shelters along the corridor where possible.

3.0 Alternative Design Concepts

Based on the project issues and needs, the Project Team developed two Alternative Design Concepts to address the identified project needs. Both design alternatives include the complete reconstruction of the Frederick Street road platform between Edna Street and Bruce Street and removing and replacing the entire asphalt pavement between Lancaster Street and Edna Street.

Alternative Design Concept “A” – comprises no change to existing lane configuration within the entire project limits.

Alternative Design Concept “B” – includes two through vehicle lanes with a two-way left turn lane between Edna Street and River Road. To address the high number of left turn collisions, the Project Team proposed exclusive opposing left turn lanes on Frederick Street at the Edna Street and Bruce Street intersections. These left turn lanes would reduce higher than usual left turn collisions at these two signalized intersections. Concept “B” also includes a westbound right turn lane at Edna Street. Region traffic analysis indicates the Concept “B” lane reconfiguration will provide acceptable levels of service for all movements at the Frederick Street at Edna Street and Frederick Street at Bruce Street intersections as well as for the mid-block areas. Concept “B” also includes cycling lanes between East Avenue and River Road. The only proposed changes to the existing lane configuration between Lancaster Street and East Avenue is the removal of the eastbound right turn lane at Lancaster Street and the removal of the westbound right turn lane at Gordon Avenue.

4.0 Preferred Alternative Design Concept

Both Alternative Design Concepts were evaluated with respect to the traffic capacity, operations and safety in comparison to their potential environmental impacts on the natural environment, and the social environment and costs.

Based on this evaluation, the Project Team has identified Alternative Design Concept “B” - Two through vehicle lanes with a two-way left turn lane between Edna Street and River Road, exclusive opposing left turn lanes at Edna Street and Bruce Street intersections, cycling lanes between East Avenue and River Road and no change to the existing lane configuration between Lancaster Street and East Avenue as the Preferred Design Alternative. Please see Appendix “B” for the typical cross-sections proposed under the Preferred Design Concept.
Public Consultation Centre Issues and Project Team Response

5.1 Public Consultation Centre (PCC) – September 22, 2010

A Public Consultation Centre (PCC) for this project was held at the Regional Headquarters Building, 150 Frederick Street in the City of Kitchener on Wednesday September 22nd, 2010. A plan showing the Project Team’s Preferred Design Alternative Concept was on display and Project Team representatives were present to answer questions and receive feedback.

5.2 Issues Raised by the Public at the PCC

Approximately twenty six (26) members of the public attended the PCC and twenty one (21) comment sheets/emails were received. Please refer to Appendix ‘C’ for a summary of the written comments received from the public. Eleven (11) responses supported the Project Team’s Alternative Design Concept “B” - Two through vehicle lanes with a two-way left turn lane between Edna Street and River Road, exclusive opposing left turn lanes at Edna Street and Bruce Street intersections, cycling lanes (reduction in the number of driving lanes from four lanes to two) between East Avenue and River Road and no change to the existing lane configuration between Lancaster Street and East Avenue. Six (6) responses supported Alternative Design Concept “A” - No change to existing lane configuration within the entire project limits. The main issues and concerns raised by the public and the Project Team responses are as follows:

a) Concern with Removing the Existing Westbound Right Turn Lane at Gordon Avenue

Public Comments

Four residents commented that they would like to retain the existing westbound right turn lane on Frederick Street at Gordon Avenue. They indicated that this right turn lane provides for a drop-off for residents that dwell at the existing apartment building at the corner of Frederick Street at Gordon Avenue (250 Frederick Street) and that it also is used for GRT buses, taxis and Mobility Plus drop offs and pick ups. One resident noted their support for the removal of this right turn lane.

Project Team Response:

Regional engineering staff reviewed this request and, in consultation with City of Kitchener engineering staff, reviewed this existing right turn lane requirement. It was discovered that the existing westbound right turn lane on Frederick Street at Gordon Avenue had at one time provided an alternative access to Lancaster Street prior to the closing of Gordon Avenue at Lancaster Street. As a result of the closing of Gordon Avenue at Lancaster Street the Project Team determined that the existing right turn lane is now redundant. To address the concerns raised, Regional engineering staff studied this situation and has prepared a design that would remove the right turn lane on Frederick Street at Gordon Avenue but would provide at this location a taxi and Mobility Plus drop-off bay in addition to providing an area for the installation of a new bus shelter.
b) Concern with Ending Bike Lanes at East Avenue

Public Comments

Three residents expressed concern that the proposed westbound bike lane will end at East Avenue and not continue for cyclists travelling into the downtown area.

Project Team Response:

Although this section of Frederick Street is not designated as an on-road cycling route the Project Team has proposed adding cycling lanes on Frederick Street between East Avenue and River Road to provide a connection to the City of Kitchener’s future cycling network on both East Avenue and River Road. The existing Frederick Street asphalt width between East Avenue and River Road provides the necessary space to convert from four through lanes to two vehicle lanes with a two-way left turn lane and cycling lanes with only a minor road widening required in the East Avenue vicinity. Because Frederick Street is not a designated on road cycling route, the Project Team is not proposing adding cycling lanes between East Avenue and Lancaster Street as the required road widening would have a major impact on existing properties and trees.

c) Concern with Reducing Frederick Street from Four Lanes to Three Lanes

Public Comments

Three residents expressed concern about the proposed reduction from four lanes to three lanes between East Avenue and River Road. They are of the opinion that the existing lane configuration is not problematic and that four lanes are necessary to handle traffic volumes.

Project Team Response:

Regional engineering staff undertook a detailed traffic capacity analysis of the Frederick Street corridor. The results indicated that the proposed lane reconfiguration between East Avenue and River Road (two vehicle lanes with a two-way left turn lane and cycling lanes) would adequately handle the existing and proposed traffic volumes on this section of Frederick Street. In addition, intersection improvements proposed at Edna Street, which involves the addition of a separate westbound right turn lane is expected to improve overall traffic operations and reduce delays.

5.0 Recommendation

Based on a technical assessment of the two Alternative Design Concepts and a thorough review of all public input received, the Project Team recommends Alternative Design Concept “B” - Two through vehicle lanes with a two-way left turn lane between Edna Street and River Road, exclusive opposing left turn lanes at Edna Street and Bruce Street intersections and a separate westbound right turn lane at Edna Street and cycling lanes between East Avenue and River Road.

Between Lancaster Street and East Avenue the Recommended Design Alternative also includes leaving Frederick Street as a two lane road and involves entirely removing and replacing the asphalt pavement on this section of Frederick Street. Furthermore, staff is recommending the removal of the eastbound right turn lane at Lancaster Street as well as the westbound right turn lane at Gordon Avenue. It also includes the addition of two pedestrian refuge islands to assist pedestrians to cross Frederick Street. The locations for the pedestrian refuge islands are just east of Dunham Street and also between Filbert Street and East Avenue.
The Recommended Design will also implement upgraded bus stops and added bus shelters along the corridor where possible. Please see Appendix “B” for typical cross-sections under the Recommended Design.

6.0 Project Cost

The estimated preliminary cost of the project is broken down as follows:

Region of Waterloo (Road and storm sewer improvements) $2,700,000
City of Kitchener (Sidewalk repairs, sanitary sewer repairs, share of storm sewer repairs) $100,000

Total Estimated Project Cost $2,800,000

7.0 Next Steps

All members of the public who have expressed an interest in this project have been notified directly of the opportunity to comment before a final decision is made for this project.

Subject to Regional Council approval of the Recommended Design Alternative, the Notice of Completion for this Class Environmental Assessment will be advertised in the local newspaper and mailed to the adjacent property owners, tenants and agencies. The Environmental Assessment Study files will be available for review for a period of 30 days. If someone feels that the study did not fully address all of the issues, they can request that the Minister of Environment order the Project to a more detailed environmental assessment, referred to as a Part II Order request. The Minister of Environment must receive such requests in writing, with a copy sent to the Region’s Commissioner of Transportation and Environmental Services. The Minister will determine if a more detailed environmental assessment is required and the Minister’s decision will be final.

If there are no significant unresolved objections following the 30 day review period, the project will proceed to detailed design and construction.

8.0 Project Schedule

Subject to project approval at the April 20, 2011 Regional Council meeting, the recommended road improvements from Lancaster Street to Bruce Street would occur in 2 stages during 2012.

Stage 1 – Edna Street to Bruce Street (approximately April to June, 2012)
Stage 2 – Lancaster Street to Edna Street (approximately June to August, 2012)

Final surface asphalt in the fully reconstructed section (between Edna Street and Bruce Street) would be placed in 2013. Lane re-striping on the City of Kitchener’s section of Frederick Street between Bruce Street to River Road would be done in conjunction with future City of Kitchener roadway improvements on this section of Frederick Street.

CORPORATE STRATEGIC PLAN:

This project is consistent with the development of Strategic Focus Area 2 (Growth Management) in terms of:

- Enhancing, developing, promoting and integrating sustainable and active forms of transportation (cycling, and walking).
It is also consistent with the development of Strategic Focus Area 5 (Infrastructure) in terms of:

- Optimizing the use of existing infrastructure and ensure it is adequately maintained.

**FINANCIAL IMPLICATIONS:**

The Region’s 2011 Ten-year Transportation Capital Forecast includes funding of $3,007,000 in the years 2011, 2012 and 2013 for the Frederick Street Improvements, all to be funded from the Roads Rehabilitation Reserve Fund. The City of Kitchener portion of the work is estimated to be $100,000 and the City of Kitchener has asked the Region to proceed with the work on their behalf and have allotted funding for their portion of the project costs in 2012.

**OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:**

NIL

**ATTACHMENTS**

- Appendix A: Key Plan
- Appendix B: Typical Cross-Sections
- Appendix C: Written Comments received from September 22nd, 2010 Public Consultation Centre

**PREPARED BY:** Michael Halloran, Project Manager, Design & Construction Division

**APPROVED BY:** Thomas Schmidt, Commissioner, Transportation and Environmental Services
APPENDIX A
Key Plan

FREDERICK STREET
LANCASTER STREET TO RIVER ROAD
CITY OF KITCHENER

Region of Waterloo
APPENDIX B
Typical Cross-Sections

FREDERICK STREET
LANCASTER STREET TO RIVER ROAD

EXISTING 2 LANE CROSS SECTION
LANCASTER STREET TO EAST AVENUE

PROPOSED 3 LANE CROSS SECTION
EAST AVENUE TO RIVER ROAD

ALTERNATIVE "B"
2 VEHICLE LANES, LEFT TURN LANE OR
TWO-WAY LEFT TURN LANE
AND 2 CYCLING LANES
## Appendix C

### PCC Comments

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<th>Project Team Response</th>
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<td>Seems OK</td>
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<td>I definitely endorse changing the road to two lanes with a dedicated turn lane. I have often had problems with cars racing down Frederick and I find it dangerous as it currently stands. Also the removal of the right turn lane at Lancaster in front of Tim Horton's is far friendlier to pedestrians.</td>
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<td>Laura Bentley</td>
<td>B</td>
<td>I think it's a great project that will alleviate many existing traffic concerns along Frederick St. in the study area. The left and right turn lanes at Edna St. will be especially welcome and reduce racing and some backup that currently occurs. It's also great to see the Region implementing bike lanes where they don't have to. Thanks for repairing Frederick St.!</td>
<td></td>
</tr>
<tr>
<td>Valerie McIntyre</td>
<td>B</td>
<td>Please remove parking cars from Mansion Street during reconstruction. Thanks.</td>
<td>Parking on all City of Kitchener side-streets will be addressed prior to construction in consultation with City of Kitchener Traffic &amp; Parking staff.</td>
</tr>
<tr>
<td>Sara Pilkey</td>
<td>A</td>
<td>I live on the corner of Ephraim St. and Ann St. We have a terrible problem with cars using our 2 streets to beat the lights at Bruce and Frederick. As well the Driver Training Centre use our end of Ephraim St. to practice on - (3 pt turns and parallel parking) even though the MTO moved the test to the other end of Ephraim St. over a year ago. If you reduce the lanes on Frederick, this will only intensify our problem. The solution then is to dead end Ann and Ephraim so this can’t happen.</td>
<td>This will be addressed in consultation with Region and City Traffic engineering staff for possible signage to discourage this activity. Police enforcement may also be requested. The Project Team believes that dedicated left turn lanes at the Bruce Street intersection (with dedicated left turn traffic signal phasing) will also deter this sort of driver behaviour.</td>
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<td>Derwyn Stilling</td>
<td>B</td>
<td>Hi Michael, Thank you for your time &amp; honesty. I look forward to working with you on the Frederick Street Improvements and your contractor. Was Hydro (KW) doing any work as far as replacing old concrete poles? Would like to see right hand turn lane stay at 250 Frederick (keeps traffic moving past bus). Would like to see more plantings along Frederick St.</td>
<td>Kitchener Wilmot Hydro staff has advised that they do not have any needs to replace these poles. It is customary on all Region of Waterloo road improvement projects that plantings and/or street trees be considered. Region of Waterloo staff will work with City of Kitchener staff to prepare a landscaping plan for the Frederick Street corridor.</td>
</tr>
<tr>
<td>Mary Ann Wasilka</td>
<td>A</td>
<td>This proposal is still based on automobile traffic. I recommend just resurfacing and design when the traffic engineers are prepared to design for cycling and pedestrian traffic as well. Thanks for not widening Frederick from Lancaster to Lydia. Cycling lanes just end!! are a problem for everyone but cyclists are at the greatest risk. I attended the Public Information night at 150 Frederick St. I have concerns that a significant number of people there were strongly supportive of only one transportation mode - cars. They didn't want any kind of restrictions and were disrespectful of walkers and cyclists. This is not new and is a pattern in Kitchener. Please forward to the cycling committee. I don’t know where or how Kitchener residents came to be intolerant of cyclists, public transit users and walkers, but it affects political decision makers. Less protection is provided for walking and cycling and the status quo remains perhaps because the Region of Waterloo is so dependant on cars and there aren't enough people to sustain a convenient bus system and walking and cycling are still predominantly, recreational and demographic related.</td>
<td>Pedestrian needs are being provided with the installation of a pedestrian refuge island just east of Dunham Street and also between Filbert Street and East Avenue. In 2004, Regional Council approved the Regional Cycling Master Plan. Frederick Street was not identified as a core or long term on-road cycling facility in this plan. However, the introduction of dedicated on-road cycling lanes on Frederick Street is being recommended as the existing roadway platform width, with a reduction from 4 to 2 through lanes, would easily support the ability to provide cycling lanes. The addition of an on-road cycling facility on Frederick Street between East Avenue and River Road will provide a convenient link to the City of Kitchener’s proposed future cycling networks on East Avenue and on River Road. The section of Frederick Street between Lancaster Street and East Avenue will not accommodate the addition of cycling lanes because of the existing narrow traffic lanes. The addition of cycling lanes in this section would involve substantial property acquisitions and the removal of many mature trees.</td>
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<td>Harold Siefken</td>
<td>B</td>
<td>I agree with slowing traffic, green spaces, and bike lanes. Looks like a good plan to me!</td>
<td>The Project Team recognized the need to provide for pedestrian crossings on Frederick Street. Therefore the Project Team has recommended the addition of two pedestrian refuge islands to assist pedestrians to cross Frederick Street. The proposed location for the pedestrian refuge islands are just east of Dunham Street and also between Filbert Street and East Avenue.</td>
</tr>
<tr>
<td>Denis Pellerin</td>
<td>Not Noted</td>
<td>Bus shelters are needed and need seats for the elderly. Crosswalks where heavier traffic is present and larger pedestrian use. If there are concerns over graffiti engage the youth allowing them to paint approved art.</td>
<td>It is customary on all Region of Waterloo roadway improvement projects to undertake a review of the existing Grand River Transit (GRT) bus stops and shelter needs. Region of Waterloo Design &amp; Construction staff and GRT staff have met and have decided to recommend the addition of a bus shelter with seats at two existing bus stops where property availability permits.</td>
</tr>
<tr>
<td>Con Papenhuyzen</td>
<td>B</td>
<td>Looks OK I understand that existing tree in front of my house will be removed and replaced on my property by another tree at a location of my choosing.</td>
<td>It is customary on all Region of Waterloo road improvement projects that any boulevard trees removed to accommodate roadway improvements would be replaced on a two for one replacement basis. Replacement trees would be provided for any trees that would be removed on this Frederick Street project.</td>
</tr>
<tr>
<td>Dave &amp; Leanne Lobe</td>
<td>B</td>
<td>We love the plans to reduce Frederick St. to one lane and add the medians and pedestrian islands. We think it will help to make our street safer for our children walking to school and crossing the street. We can't wait a welcome and fabulous improvement!</td>
<td></td>
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<td>Ron Heimpel</td>
<td>B</td>
<td>After viewing the plan for the above project on Sept 22 at Region offices it would seem that most of the changes will be positive. We would suggest consideration of the following. The elimination of the right turn lanes at Gordon west bound and at Lancaster eastbound be re-evaluated. Their use for vehicle traffic turns is agreeably pretty redundant. They do however as a bus stop area provide a very valuable break to allow traffic to flow past the bus instead of bunching up behind it. These areas also provide a place out of traffic flow for the busses to idle in order to maintain scheduling. Consideration might also be given to moving the Frederick street bus stop westbound at Edna street across the street at the Weber park corner. This would allow traffic to flow making right hand turns onto Edna even if the light is red. At present many times this flow is stalled while the bus picks up passengers or waits for the green light to proceed. Your eventual response to these items once they are evaluated would be appreciated.</td>
<td>Regional engineering staff reviewed this request and, in consultation with City of Kitchener engineering staff, reviewed this existing lane configuration. It was discovered that the existing westbound right turn lane on Frederick Street at Gordon Avenue provided an alternative access to Lancaster Street prior to the closing of Gordon Street at Lancaster Street. The Project Team determined that the existing right turn lane was therefore redundant. Regional engineering staff studied this situation and has prepared a design that would provide a drop-off bay and still provide an area for the installation of a new bus shelter. This design satisfies both needs. City of Kitchener staff also supports this design alteration. Bus stops are strategically placed throughout the Region by Grand River transit Planning Staff. The bus stop located at Edna Street travelling westbound on Frederick Street provides pick up of passengers on route 15 prior to heading northbound on Edna Street and cannot be moved to the Weber Park corner.</td>
</tr>
<tr>
<td>Lindaree Matthews</td>
<td>A</td>
<td>Comments on the Frederick Street Improvements: Having lived on Frederick Street for over 15 years, I do not see a need to change things. Comments: <strong>Pedestrian islands</strong> might make it safer for people to cross. Will they work? Do people use them? <strong>Bike lanes with “dead ends”?</strong> The core of the city needs to have safe ways to navigate the city on bikes. Why not start implementing</td>
<td>The Project Team believes that pedestrian refuge islands are a safe and effective measure to assist pedestrians to cross the road. Further, the City of Kitchener has recently installed a school crossing with an adult school crossing guard at the East Avenue intersection. The proposed pedestrian refuge island at East Avenue will further assist school children when crossing Frederick Street. The second proposed pedestrian refuge island in front of the A. R. Goudie Eventide Residence will assist pedestrians crossing Frederick Street to and from Weber Park.</td>
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<td>The Frederick Street recommended design alternative involves a minor road widening in the vicinity of the East Avenue intersection to provide the required width between the curbs and the pedestrian refuge islands for City of Kitchener snow plowing equipment. This minor road widening will slightly reduce the existing boulevard width in the vicinity of the Frederick Street at East Avenue intersection. The City of Kitchener advises they provide boulevard snow removal in downtown areas on an as-needed basis which should address this concern. It is customary on all Region of Waterloo road improvement projects that any boulevard trees removed to accommodate roadway improvements would be replaced on a two for one replacement basis. Replacement trees would be provided for any trees that would be removed on this Frederick Street project. This will be addressed prior to construction in consultation with Region of Waterloo Traffic Operations staff.</td>
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them downtown and move out to edges of the city. To me it is a lot of money to put them in only to have them end just as one really needs it. I understand the policy to have bike lanes on regional roads where possible, is a good idea in principle, but not very practical if it stops where you most need it.

**Snow:** We presently have 2 lanes of traffic in front of our home. When it snows we often have to “relocate” the snow to the front of our property so it stays off the sidewalk. With this change, we will have 2 lanes of snow plus a bike lane to fit on half the boulevard we presently have. Where will we put the snow? And when the snow melts, we have “Lake Frederick” in front of our home as it is, so we will have even more water/ice to contend with.

**Trees:** It is always sad to lose mature trees. A 2 for 1 deal does not feel like a good deal to me.

**Road Signs:** We have an Auditorium sign in the middle of our boulevard, right in front of our living room window. With a bike lane, it will be even closer. Why can’t signs in boulevards be placed at the property line between 2 properties so is does not impact the view?
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| Ted Matthews  | Alternative "B"  | 1. Maintaining snow removal from our sidewalk is very hard work under the current configuration. Snowplows turn from Dunham and we are the 1st property to get that pushed onto our place. With 2 feet less of boulevard they will be throwing the extra snow onto our sidewalk. It is very difficult as it is to maintain the driveway and sidewalks as it is.  
2. I don't see the justification for cycling lanes when they will end past Filbert. People will continue to use the sidewalk as they currently do. | The Frederick Street recommended design alternative involves a minor road widening in the vicinity of the East Avenue intersection to provide the required width between the curbs and the pedestrian refuge islands for City of Kitchener snow plowing equipment. This minor road widening will slightly reduce the existing boulevard width in the vicinity of the Frederick Street at East Avenue intersection. The City of Kitchener advises they provide boulevard snow removal in downtown areas on an as-needed basis which should address this concern.  
The Project Team decided to recommend the lane reconfiguration alternative since the lane configuration would fit within the existing asphalt width. Removing the cycling lanes would allow the narrowing of the roadway between Edna Street and River Road but the Project Team recommends maintaining the existing asphalt width should the need to revert to four lanes materialize in the future. |
| Peter Kaudewitz | A                | Street Improvements in this area do not currently appear warranted. Replacing asphalt in this area is similar to the unnecessary work carried out on Victoria Street from Breslau to Frederick Street. There are streets which are far worse. The Transportation Capital Program should be adjusted accordingly, with tax dollars better allocated.  
Current lane configurations are not problematic, and traffic flow in this area is superior. Reducing Frederick street to two lanes will increase traffic congestion, and make returning to the current profile more difficult.  
No documentation of public complaint or demand was presented, nor was traffic study | The Region of Waterloo and the City of Kitchener have reviewed the current underground infrastructure on Frederick Street and have determined that replacement and/or upgrades are required between East Avenue and Bruce Street. |
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<td>Lena and Ted Matuszek</td>
<td>A</td>
<td>info available for viewing. Surface conditions should only be updated when below grade infrastructure requires repair. Since no changes to service north of Edna Street are required, the surface conditions should not be altered. No further modifications should occur in this area until the extension of Highway 7 has been finalized.</td>
<td>This section of Frederick Street between Edna Street and Bruce Street requires full reconstruction because of the poor condition of the pavement structure. The timing for the extension of Highway 7 has not been determined by the MTO and the deteriorated asphalt on Frederick Street requires the Region to proceed by 2012.</td>
</tr>
<tr>
<td>Mary Bartlett</td>
<td>Not noted</td>
<td>Hello, Just a few comments about the upcoming project. I find that there is enough traffic flow during the day, therefore I disagree with your comment &quot;… traffic volumes are relatively low on this section of Frederick St....&quot;, the section between East Ave. and River Rd. What determines that traffic volumes are low or high in a specific area? The intersection of Bruce and Edna can experience delays before 9 am, not just in the afternoon, as indicated in the report. The roadway between East Ave and Edna St. only part of that drive is four lanes. Drivers moving westward seem to switch lanes into the right thru lane at the last minute as they approach the left turn lane onto East Ave. Maybe the construction of the two lanes and middle left/right turn lanes would solve this problem. Or if you are going to keep the four lanes of traffic between Edna St. and Bruce St. consider a left/straight lane and a right only lane. As you cross the</td>
<td>This section of Frederick Street, with four lanes, has a capacity that is far greater (approx 2600 vehicles for four lanes/hour = 650 vehicle/lane) than needed for the existing and future traffic flow. The Project Team therefore recommended to change the lane configuration (reducing the number of through lanes from 4 to 2 and adding a two-way left turn lane) as the traffic flow is considered relatively low compared to the existing capacity. Reducing the number of the lanes will have minimal effect on the capacity and will have safety benefits such as reducing vehicle speeds and improved pedestrian and bike safety.</td>
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<td>Harold Williams</td>
<td>B</td>
<td>I am in favour of Alternative &quot;B&quot; with the exception of the changes proposed for Gordon Ave. which should not be altered. Many people pick-up and discharge passengers at 250 Frederick (ie: buses, taxis, ambulance, fire trucks, vehicles turning left onto Samuel). Reducing Frederick to 2 lanes in this area would seriously allow the flow of traffic and cause severe back-ups.</td>
<td>Regional engineering staff reviewed this request and, in consultation with City of Kitchener engineering staff, reviewed this existing lane configuration. It was discovered that the existing westbound right turn lane on Frederick Street at Gordon Avenue provided an alternative access to Lancaster Street prior to the closing of Gordon Street at Lancaster Street. The Project Team determined that the existing right turn lane was therefore redundant. Regional engineering staff studied this situation and has prepared a design that would provide a drop-off bay and still provide an area for the installation of a new bus shelter. This design satisfies both needs. City of Kitchener staff also supports this design alteration.</td>
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<td>intersection at Edna St. only one lane for straight thru traffic westward and two lanes eastward up to East Ave. Only problem then would be rush hour traffic eastward delaying westward traffic on East Ave. The traffic flow between Edna St. and Bruce St. I think needs to have the two lanes in either direction. Not sure if you agree, but I would assume the right turn lane at Gordon Ave. maybe beneficial for Grand River Transit to linger a few minutes longer to allow a resident (from the apartment) with a special need to board the bus, without delaying traffic. Why such a high price tag for these improvements? Can there be a chart showing the breakdown of monies? Thanks for taking time to red my email.</td>
<td>Regional engineering staff reviewed this request and, in consultation with City of Kitchener engineering staff, reviewed this existing lane configuration. It was discovered that the existing westbound right turn lane on Frederick Street at Gordon Avenue provided an alternative access to Lancaster Street prior to the closing of Gordon Street at Lancaster Street. The Project Team determined that the existing right turn lane was therefore redundant. Regional engineering staff studied this situation and has prepared a design that would provide a drop-off bay and still provide an area for the installation of a new bus shelter. This design satisfies both needs. City of Kitchener staff also supports this design alteration.</td>
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<td>Henry Walser</td>
<td>B</td>
<td>But I would like to talk with someone about &quot;B&quot;. I am concerned about the back up of cars getting onto Edna toward the expressway. Region staff met with Mr. and Mrs. Walser to review the recommended alternative drawing shown at the PCC. After the review, Mr. and Mrs. Walser indicated they support the recommended Alternative B.</td>
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<td>Dan Riley &amp; Marilyn</td>
<td>B</td>
<td>Good day Mr. Halloran I have, just today, had enough time to read through the information package of September 22, 2010. On the off chance that the deadline for comment has been extended, I offer that of my household. <strong>I agree with the preferred alternative.</strong> <strong>Alternative &quot;B&quot;.</strong> Even agreeing, I can't help but wonder if a three lane solution might speed traffic along in the area between Edna and River. Traffic already moves way too fast in that area and it is not policed as it once was. Removing the right turn lane in front of Horton's is way over due and a very good idea. The extra lane (where the bus stops) in front of 250 Frederick should have been removed years ago. It is more of a hazard than most people ever see. I live on the corner of Frederick and Gordon. Cars have been thru our fence countless times believing they are entering another lane of traffic. Twice I have seen cars ride the sidewalk in front of our house, narrowly missing children on one occasion. Mostly, that wider area of the street is simply used for vehicles making illegal U turns to head back toward downtown. It is a totally useless and dangerous peace of blacktop. I work at the corner of Frederick and Lancaster (209), and</td>
<td>The Project Team decided to defer this existing traffic concern to Regional traffic engineering staff for review and response. Any possible remedial actions would then be taken accordingly.</td>
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I would like to bring to your attention one more serious accident waiting to happen. Several near miss traffic accidents per day happen when a vehicle is turning left from Frederick and going onto Ellen Street.

The near miss happens when another vehicle is trying to turn right from Lancaster to Frederick at the same time. The Lancaster vehicle is watching to his right, not left, and expecting the other car to turn onto Lancaster, not Ellen. You almost have to go look at the intersection to see how it happens. They both have a chance to turn at the same time, but one is crossing the other path, unrepentantly. I would not guess as to how to solve that. A turn and don’t turn, separate signal maybe?

I would also like to add that the intersection is one of the best candidates for a "Red light Camera" that I have ever seen. Sooner the better. It's a school zone and people blow the light in every direction, at every opportunity. Taxis slow down and look both ways at the red light before proceeding, after one o’clock in the morning.

Nice place to live!

All in all I believe the Region is on the right track with plan B...

Thank you.

**Jessica Romero**

Hello Mr. Michael Halloran, C.E.T
I currently live on Gordon Avenue in Kitchener, I received the notice about the Frederick Street improvements but was not able to attend the Public Consultation Centre.
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<td>on Wednesday, September 22, 2010. I would like to know what the proposed timeline is for this project and the estimated finish date. I am an avid cyclist and use my bicycle to commute to and from work, to run errands and for recreation. I ride along Frederick daily and would like to know if a bicycle lane will be included in this project. I know that the city of Kitchener has a master cycling plan which included increasing the number of designated bike lanes on major roads throughout the city. It would be beneficial to me and to others who live in the Central Frederick neighbourhood if a bike lane was added. Cars are often travelling above the speed limit and it would be more safe for cyclists if there was a designated bike lane. I would also like to know if the proposed improvements will increase traffic on Frederick Street in between Lancaster and River Street. As stated above, as a cyclist the increased traffic in this area would present more hazards to cyclists, pedestrians, and increased noise and air pollution in the neighbourhood. I would like to see the speed limit drop from 50 km/h to 40 km/h, because cars are already travelling above the speed limit. I took forward to learning more about this project. Thank you in advance for your response.</td>
<td>Construction on Frederick Street is scheduled to occur in 2 stages during 2012. Stage 1 – Edna Street to Bruce Street (approximately April to June, 2012) Stage 2 – Lancaster Street to Edna Street (approximately June to August, 2012) In 2004, Regional Council approved the Regional Cycling Master Plan. Frederick Street was not identified as a core or long term on-road cycling facility in this plan. However, the introduction of dedicated on-road cycling lanes on Frederick Street is being recommended as the existing roadway platform width, with a reduction from 4 to 2 through lanes, would easily support the ability to provide cycling lanes. The addition of an on-road cycling facility on Frederick Street between East Avenue and River Road will provide a convenient link to the City of Kitchener’s proposed future cycling networks on East Avenue and on River Road.</td>
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TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 12, 2011

FILE CODE: T04-20, 5555

SUBJECT: TRAFFIC MANAGEMENT FOR 2011 ROAD CONSTRUCTION CONTRACTS

RECOMMENDATION:

For Information Only

SUMMARY:

NIL

REPORT:

As has been customary in recent years, staff has produced this report for information purposes to provide details on the major road construction activity in the Region of Waterloo in the current year. The attached tables provide information on projects greater than one month in duration that will be undertaken in 2011 on major arterial Regional roads or on major Area Municipal streets. The tables also include the on-going construction work on provincial highways within the Region of Waterloo that is being undertaken by the Ontario Ministry of Transportation (MTO).

Each year, Region staff meets with representatives of the three Cities to plan and coordinate the next year’s collective road construction programs. At these meetings staff:

- Confirm respective priorities and needs;
- Consider combining construction contracts to reduce costs and minimize public inconvenience;
- Coordinate the proposed work to optimize the number of key major roads that are open and available to traffic;
- Organize the sequence of construction and detours to minimize public disruption; and
- Coordinate public notifications

Region and City staff acknowledge that any road construction on an existing road will involve lane restrictions and a certain amount of disruption to traffic. In order to minimize the disruption while efficiently completing the required work, a number of basic traffic management principles are applied in the design of each individual construction project. All designs take into account the following traffic management principles:

- Accommodation of emergency services;
- Ensuring the safety of construction staff;
- Maintenance of safe passage through construction;
- Minimizing disruption (motorists, pedestrians, cyclists, transit);
- Maintaining accesses;
- Minimizing lane restrictions;
- Providing for Municipal garbage collection; and
- Minimizing overall construction duration.
As a result of the joint efforts of staff at the Region and the three Cities, the collective construction programs are planned and coordinated with the objective of minimizing overall public disruption while delivering the transportation needs of the broader community.

A list of the major construction activity for 2011 is contained in Appendix A. The list identifies construction contracts that affect major arterials or major Area Municipal streets and that are greater than one month in duration.

CORPORATE STRATEGIC PLAN:

The Region’s coordination of construction programs with City staff is in harmony with Strategic Focus Area 5: “Infrastructure” of the Corporate Strategic Plan and Strategic Objective 5.1 which is to optimize the use of existing infrastructure and ensure it is adequately maintained.

FINANCIAL IMPLICATIONS:

NIL

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

NIL

ATTACHMENTS:

Appendix A - 2011 Construction on Major Roads

PREPARED BY: Marcos Kroker, Head, Transportation Rehabilitation Program

APPROVED BY: Thomas Schmidt, Commissioner, Transportation and Environmental Services
# APPENDIX A-1

## 2011 Construction on Major Roads in the City of Kitchener

<table>
<thead>
<tr>
<th>Project</th>
<th>Managed by</th>
<th>Limits</th>
<th>Traffic Restrictions</th>
<th>Timing</th>
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<tr>
<td><strong>Major projects (more than one month duration)</strong></td>
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<tr>
<td>Highway 8 Widening</td>
<td>MTO</td>
<td>Fairway Road to Sportsworld Drive</td>
<td>Evening lane restrictions only</td>
<td>Summer 2009 to Summer 2012</td>
</tr>
<tr>
<td>Highway 7/8 reconstruction and widening (4 to 6 lanes)</td>
<td>MTO</td>
<td>1.9 km West of Fischer-Hallman Road to Courtland Avenue</td>
<td>Temporary closure of ramps, lane restrictions and short duration closures of some local roads (more information to be provided by MTO later)</td>
<td>Spring 2011 to Fall 2013</td>
</tr>
<tr>
<td>Fairway Road Extension and Bridge over the Grand River</td>
<td>Region</td>
<td>Zeller Drive to Grand River</td>
<td>New Road (not open during construction)</td>
<td>Fall 2010 to Fall 2012</td>
</tr>
<tr>
<td>Fischer-Hallman Road Resurfacing and Bike Lanes</td>
<td>Region</td>
<td>Queens Boulevard to Victoria Street</td>
<td>Lane closure</td>
<td>Spring 2011 to early Summer 2011</td>
</tr>
<tr>
<td>Courtland Avenue Reconstruction</td>
<td>Region</td>
<td>Queen Street to Stirling Avenue</td>
<td>Full closures by block, business access</td>
<td>Spring 2011 to Fall 2012</td>
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</table>
| Roundabout – Homer Watson Boulevard at Block Line Road| Region     | N/A                                   | Full closures on Block Line Road
Lane closures on Homer Watson Boulevard               | Summer 2011                                    |

**Note:** Other reconstructions managed by City staff are occurring on local City streets at various locations and MAY include full closures.
## 2011 Construction on Major Roads in the City of Kitchener

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<td><strong>Major projects (more than one month duration)</strong></td>
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<tr>
<td>Spadina Road Reconstruction</td>
<td>City</td>
<td>Mill Street to Highland Road</td>
<td>Full Closure</td>
<td>Spring 2011</td>
</tr>
<tr>
<td>Kent Avenue Reconstruction</td>
<td>City</td>
<td>Charles Street to Schneider Creek</td>
<td>Full closure</td>
<td>Spring 2011</td>
</tr>
<tr>
<td>Greenbrook Drive/Stirling Avenue</td>
<td>City</td>
<td>Homer Watson Boulevard to Lakeside Drive</td>
<td>To Be Determined by the City</td>
<td>Fall 2011</td>
</tr>
<tr>
<td>Reconstruction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morrison Road</td>
<td>City</td>
<td>Sims Estate Drive</td>
<td>Full Closure</td>
<td>Fall 2011</td>
</tr>
<tr>
<td>Hayward Avenue Bridge Rehabilitation</td>
<td>City</td>
<td>N/A</td>
<td>Full Closure</td>
<td>Summer 2011</td>
</tr>
<tr>
<td>Park Street Reconstruction</td>
<td>City</td>
<td>Union Street to City of Waterloo</td>
<td>Full Closures by block</td>
<td>Spring/Summer 2011</td>
</tr>
<tr>
<td>Huron Road reconstruction (Phase One)</td>
<td>City</td>
<td>Strasburg Road to Plains Road</td>
<td>Full Closures</td>
<td>Spring /Fall 2011</td>
</tr>
</tbody>
</table>

**Note:** Other reconstructions managed by City staff are occurring on local City streets at various locations and may include full closures.
# APPENDIX A-3

## 2011 Construction on Major Roads in the City of Waterloo

<table>
<thead>
<tr>
<th>Project</th>
<th>Managed by</th>
<th>Limits</th>
<th>Traffic Restrictions</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major projects (more than one month duration)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laurel Trunk Sewer</td>
<td>City</td>
<td>Crossing at University Ave at Laurel Creek Culvert (west), Marshall to Waterloo Waste Water Treatment Plant</td>
<td>Lane Closures</td>
<td>Tentative start Spring/Summer 2011</td>
</tr>
<tr>
<td>Uptown Allen, Esson &amp; Severn Street Reconstruction</td>
<td>City</td>
<td>Esson from Allen to Union Blvd, Allen from Belmont to Park St., Severn from John to Union Blvd.</td>
<td>Full Closures</td>
<td>Spring/Summer 2011</td>
</tr>
<tr>
<td>Park Street Reconstruction</td>
<td>Kit/Wat</td>
<td>Kitchener City limit to Allen St.</td>
<td>Full Closure</td>
<td>Spring/Summer 2011</td>
</tr>
<tr>
<td>Davenport, Phase 2</td>
<td>City</td>
<td>Lexington to Anndale Crt, and Old Abbey to Northfield</td>
<td>Lane closures</td>
<td>Spring 2011</td>
</tr>
<tr>
<td>University Avenue East - Final Asphalt</td>
<td>City</td>
<td>Bridge Street to Lexington Road</td>
<td>Lane Closures</td>
<td>Summer 2011</td>
</tr>
<tr>
<td>Millenium Boulevard Extension</td>
<td>City</td>
<td>New Road - Adjacent to Rim Park</td>
<td>New Road (not open during construction)</td>
<td>Spring to Fall 2011</td>
</tr>
<tr>
<td>Sundew Drive</td>
<td>City</td>
<td>New Road - West side of Columbia Street</td>
<td>New Road (not open during construction)</td>
<td>Spring to Fall 2011</td>
</tr>
</tbody>
</table>

Note: Other reconstructions managed by City staff are occurring on local City streets at various locations and may include full closures
## APPENDIX A-4

### 2011 Construction on Major Roads in the City of Cambridge

<table>
<thead>
<tr>
<th>Project</th>
<th>Managed by</th>
<th>Limits</th>
<th>Traffic Restrictions</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major projects (more than one month duration)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hespeler Road Grade Separation</td>
<td>Region</td>
<td>Dundas Street to Avenue Road</td>
<td>Short-term lane restrictions off-peak and during transitions</td>
<td>Fall 2010 to Fall 2012</td>
</tr>
<tr>
<td>Fairway Road Extension and Bridge over the Grand River</td>
<td>Region</td>
<td>Grand River to Fountain Street</td>
<td>New Road (not open during construction)</td>
<td>Fall 2010 to Fall 2012</td>
</tr>
<tr>
<td>Dundas Street Reconstruction including City Sanitary and Watermain</td>
<td>Region</td>
<td>Branchton Road to Franklin Boulevard</td>
<td>Northbound closed; one southbound lane only</td>
<td>Spring to Fall 2011</td>
</tr>
<tr>
<td>Pinebush Road, turn lanes, bike lanes</td>
<td>Region</td>
<td>Hespeler Road to Wayne Avenue</td>
<td>Lane restrictions</td>
<td>Summer 2011</td>
</tr>
<tr>
<td>Townline Road Reconstruction</td>
<td>Region</td>
<td>Avenue Road to Can-Amera Parkway</td>
<td>Full closure of partial sections in stages</td>
<td>Fall 2010 to Fall 2011</td>
</tr>
<tr>
<td>Fifth Avenue</td>
<td>City</td>
<td>Tait Street to Glenmorris Street</td>
<td>Road closure</td>
<td>May - October</td>
</tr>
<tr>
<td>Tait Street</td>
<td>City</td>
<td>First Avenue to Third Avenue and Fifth Avenue to Gordon Street</td>
<td>Road closure</td>
<td>May - October</td>
</tr>
<tr>
<td>Park Avenue</td>
<td>City</td>
<td>Parkhill Road to James Street</td>
<td>Road closure</td>
<td>May - October</td>
</tr>
<tr>
<td>James Street</td>
<td>City</td>
<td>George Street North to Blair Road</td>
<td>Road closure</td>
<td>May - October</td>
</tr>
<tr>
<td>Oak Street</td>
<td>City</td>
<td>Rich Avenue to McNaughton Street</td>
<td>Road closure</td>
<td>April - August</td>
</tr>
<tr>
<td>Ball Avenue</td>
<td>City</td>
<td>Oak Street to Lincoln Avenue</td>
<td>Road closure</td>
<td>April - August</td>
</tr>
<tr>
<td>Concession Street</td>
<td>City</td>
<td>Water Street to Chisholm Street</td>
<td>Lane closure</td>
<td>April - July</td>
</tr>
</tbody>
</table>
APPENDIX A-5

2011 Construction on Major Roads in the City of Cambridge

<table>
<thead>
<tr>
<th>Project</th>
<th>Managed by</th>
<th>Limits</th>
<th>Traffic Restrictions</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamilton Street</td>
<td>City</td>
<td>Beck Street to Montrose Street</td>
<td>Road closure</td>
<td>May – September</td>
</tr>
<tr>
<td>Queenston Road</td>
<td>City</td>
<td>Brower Street to Dead end</td>
<td>Road closure</td>
<td>May – September</td>
</tr>
<tr>
<td>Main Street</td>
<td>City</td>
<td>Water Street to Ainslie Street</td>
<td>Lane closure</td>
<td>May – Aug</td>
</tr>
<tr>
<td>Boxwood Subdivision</td>
<td>City</td>
<td>Maple Grove Road, Boxwood Drive,</td>
<td>Lane closures expected on</td>
<td>May – Nov</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Royal Oak Road, Speedsville Road.</td>
<td>Boxwood Drive, Royal Oak</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Road and Speedsville Road.</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Other reconstructions managed by City staff are occurring on local City streets at various locations and may include full closures.
### APPENDIX A-6

#### 2011 Construction on Major Roads - Townships

<table>
<thead>
<tr>
<th>Project</th>
<th>Managed by</th>
<th>Limits</th>
<th>Traffic Restrictions</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major projects (more than one month duration)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheifele Bridge Rehabilitation</td>
<td>Region</td>
<td>Northfield Drive at Conestoga River</td>
<td>Short term lane restrictions with temporary signals</td>
<td>Spring to Fall 2011</td>
</tr>
<tr>
<td>Bridge Rehabilitation</td>
<td>Region</td>
<td>Northfield Drive at Canagagigue Creek</td>
<td>Short term lane restrictions with temporary signals</td>
<td>Summer to Fall 2011</td>
</tr>
<tr>
<td>Bridge Rehabilitation</td>
<td>Region</td>
<td>Katherine Street at Trans Canada Trail</td>
<td>Short term lane restrictions with temporary signals</td>
<td>Spring to Summer 2011</td>
</tr>
<tr>
<td>Watermain Installation – Erb’s Road</td>
<td>Region</td>
<td>St. Agatha to 300 m East of Wilmot Line</td>
<td>Full closure in Village of St. Agatha &amp; lane restrictions with flagpersons on remainder</td>
<td>Spring 2011</td>
</tr>
</tbody>
</table>

**Note:** Other reconstructions managed by Township staff are occurring on local streets at various locations and may include full closures
Regional Municipality of Waterloo

UNIVERSITY AVENUE IMPROVEMENTS
LINCOLN ROAD TO WEBER STREET

CITY OF WATERLOO

INFORMATION PACKAGE

Public Consultation Centre
Tuesday April 19, 2011
5:30 p.m. – 8:00 p.m.

at

Lincoln Heights Public School
270 Quickfall Drive, Waterloo

There is a Comment Sheet at the back of this package. If you wish, please fill it out and deposit it in the designated box provided at this Consultation Centre.
1. **What is the Purpose of this Public Consultation Centre?**

The Region of Waterloo is currently considering improvements to University Avenue from Lincoln Road to Weber Street in the City of Waterloo. Please refer to Appendix ‘A’ for a Key Plan. Within the Study Area, University Avenue and Weber Street are arterial roadways under the jurisdiction of the Region of Waterloo. Marsland Drive, Carter Avenue, Mayfield Avenue, Glenridge Drive and Lincoln Road are local roadways under the jurisdiction of the City of Waterloo.

This project has been initiated to address the poor pavement condition on the section of University Avenue from Lincoln Road to Weber Street.

Improvements currently under consideration include:

- Reconstruction of University Avenue from Lincoln Road to Weber Street;
- Modifications to some intersections within the project limits to improve traffic operations; and
- Construction of on-road cycling facilities and enhanced pedestrian facilities within the project limits.

We encourage you to provide comments on the improvements under consideration by filling out the Comment Sheet attached to the back of this Information Package and either placing it in the box at this Public Consultation Centre or sending it to the address indicated on the Comment Sheet. Your comments will be considered by the Project Team, in conjunction with all of the other relevant information, in establishing a recommended design for improvements to University Avenue.

2. **Who is Directing the Planning of These Improvements?**

The planning of these infrastructure improvements is being undertaken by a “Project Team” consisting of staff from the Region of Waterloo, the City of Waterloo and City of Waterloo Ward 5 Councillor, Mark Whaley. The engineering consulting firm IBI Group has been retained by the Region to undertake the engineering design for these improvements.

3. **How Does this Project Relate to the Objectives of the Regional Official Plan, the Regional Transportation Master Plan and the Regional Transportation Corridor Design Guidelines?**

The Project Team is planning these improvements to address both the deteriorated roadway condition as well as to include enhancements to the roadway corridor consistent with Regional Bylaws, policies plans and practices. The Regional Official Plan gives the direction to balance new and retrofitted roads for all modes of transportation including walking, cycling, autos and transit. This project supports the Regional Transportation Master Plan (RTMP) goals of optimizing our transportation system, promoting transportation choice and supporting sustainable development. This project will support the cycling environment by providing for reserved on-road cycling lanes on each side of University Avenue within the project limits. Additionally, this project includes measures to improve transportation operations along this section of University Avenue, as well as enhanced boulevard landscaping to improve the walking environment. Improving the walking environment is a key objective of the RTMP and will support its Transit Modal Share targets. In addition, Regional Council also approved the Regional Transportation Corridor Design Guidelines in 2010 that supports the integration of active and sustainable transportation on all Regional Roads.
4. **What Improvements are being Considered?**

   Based on technical studies and investigations completed, as well as the objectives of the Regional Official Plan, Transportation Master Plan and Transportation Corridor Design Guidelines described in Section 3 of the Information Package, the Project Team has identified the following Preferred Design for the proposed improvements on University Avenue:

   - Complete replacement of the pavement structure on University Avenue from Lincoln Road to Weber Street;
   - Construction of new designated left-turn lanes on University Avenue at Carter Avenue and Mayfield Avenue;
   - Replacement of the existing storm sewer system on University Avenue from Lincoln Road to Weber Street;
   - Increased storage capacity for all existing left-turn storage lanes within the project limits on University Avenue;
   - Improved signal timing at all intersections within the project limits currently controlled by traffic control signals;
   - Construction of 1.25 metre reserved on-road cycling lanes on each side of University Avenue from Lincoln Road to Weber Street;
   - Construction of a pedestrian refuge island on University Avenue at Carter Avenue in order to facilitate pedestrian crossings for the Hillside Park Trail;
   - Enhanced boulevard landscaping where feasible; and
   - Street lighting upgrades at all signalized intersections within the project limits.

   Please refer to Appendix ‘B’ for drawings of the Project Team’s Preferred Design for University Avenue.

5. **What are the Impacts to the Natural Environment?**

   There are 94 existing trees located within the University Avenue road allowance from Lincoln Road to Weber Street. Laurel Creek, which crosses University Avenue just west of Carter Avenue, is a permanent warm water system that is located within a well-vegetated corridor.

   It is expected that approximately four (4) trees will have to be removed during construction to accommodate the proposed improvements. The plans presented at this Consultation Centre show trees that likely will require removal. It is the Region’s practice to plant two replacement trees for each tree removed as a result of any road projects.

   The proposed improvements to University Avenue do not require any modifications to the existing Laurel Creek culvert on University Avenue or any need to undertake construction within the watercourse limits. The construction will include measures to protect the Creek through the use of erosion and sediment control measures.

6. **Were Roundabouts Considered for this Project?**

   The implementation of modern roundabouts was considered by the Project Team to replace
the existing traffic control signals on University Avenue at its intersections with Lincoln Road, Glenridge Drive and Marsland Drive. The completed evaluations found that taking into account the estimated capital and operating costs of traffic control signals and roundabouts, collision histories at these intersections and property constraints, roundabouts are not recommended over traffic control signals at these intersections.

7. **When will Construction Occur?**

Construction on University Avenue is tentatively scheduled to occur in 2013. The Region's Transportation Capital Program is reviewed annually and the timing of projects may change depending on several factors. This proposed 2013 timing is also subject to property acquisition, utility relocations and technical approvals required to implement the improvements.

8. **How Will Vehicular Traffic, Pedestrian Access and Grand River Transit Service be Maintained During Construction?**

It is tentatively proposed that construction be completed in two (2) separate stages in order to minimize disruption to traffic. These two (2) stages of construction are described as follows:

Stage 1 – University Avenue from Lincoln Road to Glenridge Drive; and

Stage 2 – University Avenue from Glenridge Drive to Weber Street.

Through traffic will be maintained on University Avenue at all times during construction and no detours for University Avenue are planned. It may be necessary to detour traffic on local intersecting side streets for short periods of time during construction. Traffic will be restricted to one lane in each direction during each stage of construction. Existing left turn lanes will be maintained on University Avenue at Lincoln Road, Glenridge Drive, Marsland Drive and Weber Street during construction.

As is customary when Regional Roads are under construction, motorists will be advised of the construction timing and traffic restrictions through advance signage, the Region's website, and radio and newspaper notices.

The Fire Department, Waterloo Regional Police and Ambulance Services will all be advised of all traffic restrictions during the construction period.

Grand River Transit Service will be maintained during construction through the implementation of temporary bus stop locations as required.

Pedestrian access will be maintained on one side of University Avenue (as a minimum) for the duration of the construction. Signage will be erected in order to direct pedestrians through the project area.

9. **How will Access be Maintained to Properties during Construction?**

Access to individual properties and businesses will be maintained at all times except for short durations when work is concentrated in the immediate vicinity of each driveway. A minimum of 48 hours advance notification will be provided for driveway/access interruptions. If necessary, alternate parking arrangements will be made, such as provision for temporary parking on adjacent side streets.
For commercial properties within the work zone, additional signage will be provided during construction to direct customers to the business. If only one driveway exists, the Contractor will complete the work across your driveway in two stages.

Special attention will also be given to ensure access is maintained for emergency vehicles during and after construction hours.

10. How will Trees, Driveways and Lawns be Affected?

It is expected that approximately four (4) trees will have to be removed during construction to accommodate the proposed improvements. The plans presented at this Consultation Centre show trees that likely will require removal. It is the Region’s practice to plant two replacement trees for each tree removed as a result of any road projects. Any grassed areas disturbed during construction will be repaired to equal or better condition with topsoil and sod. In addition to replacing any removed trees on a 2-for-1 basis, new boulevard landscaping, including salt resistant trees and shrubs, will be included as part of the project where feasible. Driveways will be regraded as necessary in order to blend smoothly with the newly constructed roadway.

11. Will Property Acquisition be Required for this Project?

Implementation of the Project Team’s Preferred Design requires a widening of the paved roadway of approximately 1.20 metres in order to accommodate reserved on-road cycling lanes on each side of University Avenue. Due to this minor road widening, the Region will need to acquire property from nine (9) property owners. These proposed property purchases consist of small strips of land immediately adjacent to the existing right-of-way.

In areas where property is required, the property owner will be contacted directly by the Region of Waterloo’s Land Purchasing Officer. Compensation will be provided at fair market rates based on recent similar area sales. The plans presented at this Consultation Centre show the proposed property acquisition that will likely be required. Please refer to Appendix ‘C’ for further information on the property acquisition process.

12. How will Garbage / Recyclables be Collected During Construction?

For residential properties on University Avenue, garbage and blue boxes will continue to be picked up at the end of your driveway as usual. When work is occurring in front of your property and garbage collection vehicles do not have access to your driveway on garbage collection day, our Contractor will deliver your garbage and recyclables to an adjacent side street and return the empty containers afterwards. We ask that all residents mark their containers with their address for easy identification.

For properties with private garbage collection, driveway access will be maintained during each stage of construction to provide access for private garbage collection as noted in Section 9 of this Information Package.

13. What about Dust During Construction?

The Region will be monitoring the amount of dust generated by construction activities on a daily basis. When necessary, the Region will ensure that the contractor uses proper dust suppression measures (i.e. the application of water and/or calcium chloride) in accordance with the Region’s standard practice.
14. How will the Proposed Improvements Enhance the Pedestrian Environment on this Project?

Currently, 1.50 metre wide sidewalks exist on both sides of University Avenue within the project limits. These existing sidewalks will require removal in some locations in order to accommodate the road reconstruction; however, any sections removed will be fully reinstated. In addition, a pedestrian refuge island will be constructed on University Avenue at Carter Avenue in order to facilitate pedestrian crossings for the Hillside Park Trail. Enhanced boulevard landscaping will also be provided where feasible to improve the pedestrian environment within the project limits.

15. What are the expected Working Hours during Construction?

In general, construction working hours are from 7:00 a.m. to 7:00 p.m. Monday through Friday, although the contractor may also work on Saturdays from time to time. There may also be occasions where the contractor is required to complete a critical work item outside of these normal working hours. Work outside normal working hours must be approved by the Region and the City of Waterloo.

16. Will the Posted Speed Limit on University Avenue be Changed?

Following construction, the Region will retain the posted speed limit of 50 km/hr on University Avenue.

17. Are any Upgrades to the Watermain or Sanitary Sewer Planned?

The City of Waterloo owns and operates the watermain and sanitary sewer on University Avenue within the project limits. The City of Waterloo has advised the Region that it has no plans to replace or upgrade their watermain or sanitary sewer on University Avenue at this time.

18. Can my Existing Water Service be Upgraded?

If property owners wish to replace their water service from the watermain to the property line with a larger diameter service they are encouraged to have this work included in this project. Undertaking these improvements in conjunction with the proposed construction typically results in cost savings to the property owner as compared to undertaking the work independently at another time in the future. Subject to a mutual agreement between the City of Waterloo and the property owner, existing water services may be upgraded from the mains under the road to the property line at the property owner’s expense.

If you wish to discuss an increase in the size of your water service to a size greater than the standard of 25mm diameter, please indicate so on your comment sheet. From this information, staff will contact you at a later date to discuss your plans and to provide a cost estimate for your desired improvements.

Additionally, property owners may wish to consider replacing their water service between the property line and their building at the same time as this construction. If property owners wish to pursue this additional work, please indicate so on the comment sheet and staff will contact you later to discuss how you can make arrangements to have this work completed. The property owner will be responsible for all the costs to replace the water service on private property.
19. Can my Existing Sanitary Service be Upgraded?

If property owners wish to replace their sanitary service from the sewer main to the property line with a larger service they are encouraged to have this work included in this project. Undertaking these improvements in conjunction with the proposed construction typically results in cost savings to the property owner as compared to undertaking the work independently at another time in the future. Subject to a mutual agreement between the City of Waterloo and the property owner, existing sanitary services may be upgraded in size from the sanitary sewers under the road to the property line at the property owner’s expense.

If you wish to discuss an increase in the size of your sanitary service to a size greater than the standard of 100mm diameter, please indicate so on your comment sheet. From this information, staff will contact you at a later date to discuss your plans and to provide a cost estimate for your desired improvements.

Additionally, property owners may wish to consider replacing their sanitary service between the property line and their building at the same time as this construction. If property owners wish to pursue this additional work, please indicate so on the comment sheet and staff will contact you later to discuss how you can make arrangements to have this work completed. The property owner will be responsible for all the costs to replace the sanitary service on private property.

20. What is the Estimated Cost of this Project and how will it be Funded?

The Region of Waterloo is funding the cost of the road improvements on this project through its approved 2011 Transportation Capital Program. The estimated total project cost for the proposed University Avenue improvements is $4,500,000.

21. What are the Next Steps?

Prior to finalizing the recommended design concept for University Avenue for Regional Council's approval, the Project Team is asking for the public’s input on the Preferred Design. This Public Consultation Centre is your opportunity to ask questions, provide suggestions, and make comments. Once your input is received, it will be used by the Project Team, in conjunction with all other relevant information, to finalize the recommended design for the University Avenue improvements.

22. When will Final Decisions be Made for this Project?

The Project Team will review the public comments received from this evening’s Consultation Centre and use them as input for recommending a final Design Concept for the University Avenue project. This Final Recommendation will be presented to Regional Planning and Works Committee and Council in June 2011 for approval. In advance of these meetings, letters will be sent to all adjacent property owners and tenants (as well as to all members of the public specifically registering at this Public Consultation Centre) so that anyone wishing to speak to Committee or Council about this project can do so before final approval.
23. How Can I Voice My Comments At This Stage?

In order to assist us in addressing any comments or concerns you might have regarding this project, we ask that you please fill out the attached Comment Sheet and leave it in the box provided at the registration table. Alternatively, you can mail, fax or e-mail your comments to the Region of Waterloo not later than April 29, 2011.

We thank you for your involvement and should you have any questions or concerns, please contact the following:

Mr. Jim Ellerman, A.Sc.T.
Project Manager, Capital Projects
Regional Municipality of Waterloo
150 Frederick Street, 6th Floor
Design and Construction Division
Kitchener, ON N2G 4J3
Phone: 519-575-4757 ext. 3757
Email: jellerman@regionofwaterloo.ca

Mr. Don Drackley, MCIP, RPP
Senior Associate
IBI Group
379 Queen St. S.
Kitchener, ON N2G 1W6
Phone: 519-745-9455 ext. 1302
Fax: 519-745-7647
Email: ddrackley@ibigroup.com
Appendix B-1
Typical Cross Section – Existing Conditions

UNIVERSITY AVENUE
LINCOLN ROAD to WEBER STREET
TYPICAL EXISTING CROSS SECTION
Appendix B-2

Typical Cross Section – Preferred Design Alternative

UNIVERSITY AVENUE
LINCOLN ROAD to WEBER STREET
PREFERRED DESIGN ALTERNATIVE
Appendix C

Property Acquisition Process Information Sheet

The following information is provided as a general overview of the property acquisition process and is not legal advice. Further, the steps, timing and processes can vary depending on the individual circumstances of each case.

Once the Recommended Design Concept has been approved, the property acquisition process and the efforts of Regional Real Estate staff will focus on acquiring the required lands to implement the approved design. Regional staff cannot make fundamental amendments or changes to the approved design concept.

Property Impact Plans
After the project has been approved and as it approaches final design, the project planners will generate drawings and sketches indicating what lands and interests need to be acquired from each affected property to undertake the project. These drawings are referred to as Property Impact Plans (PIP).

Initial Owner Contact by Regional Real Estate Staff
Once the PIPs are available, Regional Real Estate staff will contact the affected property owners by telephone and mail to introduce themselves and set-up initial meetings to discuss the project and proposed acquisitions.

Initial Meetings
The initial meeting is attended by the project engineer and the assigned real estate staff person to brief the owner on the project, what part of their lands are to be acquired or will be affected, what work will be undertaken, when, with what equipment, etc and to answer any questions. The primary purpose of the meeting is to listen to the owner and identify issues, concerns, effects of the proposed acquisition on remaining lands and businesses that can be feasibly mitigated and/or compensated, and how the remaining property may be restored. These discussions may require additional meetings. The goal of staff is to work with the owner to reach mutually agreeable solutions.

Goal – Fair and Equitable Settlement for All Parties
The goal is always to reach a fair and equitable agreement for both the property owner and the
Region. Such an agreement will provide compensation for the fair market value of the lands and address the project impacts (such as repairing or replacing landscaping, fencing, paving) so that the property owner will receive the value of the lands acquired and the restoration of their remaining property to the condition it was prior to the Project.

The initial meetings will form the basis of an initial offer of settlement or agreement of purchase and sale for the required lands or interests.

**Steps Toward Offer of Settlement or Agreement of Purchase and Sale**

The general steps towards such an offer are as follows;

1) the Region will obtain an independent appraisal of the fair market value of the lands and interests to be acquired, and an appraisal of any effect on the value of the rest of the property resulting from the acquisition of the required lands and interests;

2) compensation will be estimated and/or works to minimize other effects will be defined and agreed to by the property owner and the Region;

3) reasonable costs of the owner will be included in any compensation settlement;

4) an offer with a purchase price and any other compensation or works in lieu of compensation will be submitted to the property owner for consideration; and

5) an Agreement will be finalized with any additional discussion, valuations, etc as may be required.

Depending on the amount of compensation, most agreements will require the approval of Council. The approval is undertaken in Closed Session which is not open to the public to ensure a level of confidentiality.

**Expropriation**

Due to the time constraints of these projects, it is the practice of the Region to commence the expropriation process in parallel with the negotiation process to ensure that lands and interests are acquired in time for commencement of the Project. Typically, over 90% of all required lands and interests are acquired through the negotiation process. Even after lands and interests have been acquired through expropriation an agreement on compensation can be reached through negotiation, this is usually referred to as a ‘settlement agreement’.

Put simply, an expropriation is the transfer of lands or an easement to a governmental authority for reasonable compensation, including payment of fair market value for the transferred lands, without the consent of the property owner being required. In the case of expropriations by municipalities such as the Region of Waterloo, the process set out in the Ontario *Expropriations Act* must be followed to ensure that the rights of the property owners provided under that Act are protected.
COMMENT SHEET

REGIONAL MUNICIPALITY OF WATERLOO

UNIVERSITY AVENUE IMPROVEMENTS
City of Waterloo

PUBLIC CONSULTATION CENTRE

Please complete and hand in this sheet so that your views can be considered for this project. If you cannot complete your comments today, please take this home and mail, fax or e-mail your comments by April 29th, 2011 to:

Mr. Jim Ellerman, A.Sc.T.  Mr. Don Drackley, MCIP, RPP
Project Manager, Capital Projects  Senior Associate
Regional Municipality of Waterloo  IBI Group
150 Frederick Street, 6th Floor  379 Queen St. S.
Design and Construction Division  Kitchener, ON N2G 1W6
Kitchener, ON N2G 4J3  Phone: 519-745-9455 ext. 1302
Phone: 519-575-4757 ext. 3757  Fax: 519-745-7647
Email: jellerman@regionofwaterloo.ca  Email: ddrackley@ibigroup.com

Are you interested in upgrading your water service?  Yes __ No __
Are you interested in upgrading your sanitary service? Yes __ No __

Comments or concerns regarding this project:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
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________________________________________________________________________
________________________________________________________________________

Name: __________________________
Address: ________________________________________________________________
Postal Code: ________________

COLLECTION NOTICE

Personal information requested on this form is collected under the authority of the Municipal Act and will be used to assist Regional staff and the Regional Planning and Works Committee in making decisions on this project.
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 12, 2011

FILE CODE: L07-40

SUBJECT: CLOSING AND SURPLUS DECLARATION OF PART OF NORTHFIELD DRIVE EAST (REGIONAL ROAD 22), TOWNSHIP OF WOOLWICH

RECOMMENDATION:

That the Regional Municipality of Waterloo close and declare surplus a portion of Northfield Drive East, in the Township of Woolwich described as Part Lot 32, German Company Tract, as detailed in Report No. CR-RS-11-017 dated April 12, 2011, pursuant to the Region’s property disposition by-law, to the satisfaction of the Regional Solicitor.

SUMMARY:

NIL

REPORT:

The Region assumed ownership of this road from the Corporation of the Township of Woolwich in 1973. The road bed in this located was shifted in the late 1950s to the west. The original road bed was left to provide access to the abutting property. The Region has been approached by the owner of 911 Northfield Drive East with a request to purchase the road bed in front of his property as a lot extension. Transportation and Environment Services staff have advised that the subject lands are not required for road purposes and will not be required in the future. The proposed disposition would eliminate the Region’s maintenance and liability obligation for the lane access. The land area is .037 acres. The subject lands do not have ‘stand alone’ development potential.

When the portion of road has been closed and the requirements of the Region’s property disposition by-law have been met the lands will be offered for sale to the abutting land owner at fair market value. There is only one possible purchaser of the property who has an interest in obtaining the lands to form a lot addition to 911 Northfield Drive East property.

The subject lands are shown attached as Appendix “A”

CORPORATE STRATEGIC PLAN:

One of the focus areas of the Corporate Strategic Plan is to foster a culture of citizen/customer service that is responsive to community needs.
FINANCIAL IMPLICATIONS:

The future purchaser of the subject lands will be responsible for all associated costs of the road closing and conveyance.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

Transportation and Environmental Services Department and Planning, Housing and Community Services Department have been consulted in the preparation of this report.

ATTACHMENTS

Appendix “A” – location map of lands.

PREPARED BY: Joan Moore, Property Agent

APPROVED BY: Gary Sosnoski, Commissioner, Corporate Resources
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 12, 2011
FILE CODE: T18-01

SUBJECT: REGION OF WATERLOO INTERNATIONAL AIRPORT – LAND DEVELOPMENT AND FEES AND CHARGES UPDATE

RECOMMENDATION:

THAT the Regional Municipality of Waterloo approve the revised fees and charges for land development at the Region of Waterloo International Airport with the new fees and charges to have effect on June 1, 2011 as set out in Report E-11-033/CR-RS-11-021 dated April 12, 2011;

AND THAT the Regional Clerk be directed to issue notice of intent to amend the Region’s Fees and Charges By-law to incorporate the fee and charge amendments described in Report E-11-033/CR-RS-11-021 dated April 12, 2011 in accordance with the policy of the Regional Municipality of Waterloo for providing notice;

AND FURTHER THAT the Commissioner of Transportation and Environmental Services of the Regional Municipality of Waterloo be authorized to enter into an agreement with the Corporation of the Township of Woolwich as may be required to facilitate the development lands at the Region of Waterloo International Airport as described in Report E-11-033/CR-RS-11-021 dated April 12, 2011 with the form and content of such agreement to be to the satisfaction of the Regional Solicitor.

SUMMARY:

In 2010, Regional Council approved the servicing of additional lands for airport related development in the northwest corner of the Airport lands fronting Fountain Street. The work of making these lands ready for development is underway with the construction of access roads, a taxiway and the installation of utilities and services. The purpose of this report is to provide an update on the progress of this development and to recommend several changes to the fees and charges applicable to new development at the Airport.

REPORT:

In the fall of 2010, Regional Council approved the installation of services to accommodate new aviation development at the Airport within an area of approximately 40 acres in the northwest corner of the Airport. This area is referred to as Leased Land Development Area 4 (LL4) in the Master Plan approved for the Airport in 2000 and also in the five year business plan approved for the Airport in 2009 (see report E-09-064 dated June 16, 2009). The purpose of LL4 is intended to attract commercial aviation related undertakings which will enhance opportunities for existing businesses at the Airport and within the Region and provide permanent employment opportunities at the Airport. Both the lot sizes for development and the facilities that will be constructed within the LL4 development area are anticipated to be larger than existing facilities
at the Airport. The minimum size of aviation facilities to be constructed within the LL4 area is anticipated to be 20,000 square feet with lot sizes to range from between 4 acres up to 9 acres depending upon the requirements of a prospective tenant. Existing commercial facilities at the airport have typically been less than 20,000 square feet with lot sizes less than one acre. A diagram of the LL4 development area is attached to this Report and marked as Appendix A.

Servicing of the LL4 lands is anticipated to be completed in the summer of 2011 which includes the construction of a new taxiway, vehicular access roads and the installation of water, sewer and other utilities to accommodate new development. Regional staff has entered into an offer to lease subject to Regional Council approval with Dynasty Air Flight Services ULC, an Alberta corporation, to construct a commercial fixed base aviation facility which will be located in the southeast corner of the LL4 lands (see Report CR-RS-11-022/E-11-042 dated April 12, 2011 for additional information). Regional staff is in discussions with a proponent proposing to construct a second aviation related facility – a commercial maintenance facility – which could be located in the northwest corner of the development in or about the area marked as Lot 1 on Appendix A.

**Amendment to Fees and Charges By-law**

As a result of the nature of the commercial undertakings in the LL4 development area, several changes to the Region’s Fees and Charges by-law (By-law 10-001, as amended) are recommended, namely,

- Currently, the Region’s Fees and Charges by-law provides for a Development Fee in the amount of $1.43 per square foot of leased lands for a new facility to be constructed at the Airport and an additional fee of $20,000 to enable a connection to the water and sewer infrastructure at the Airport. Given the considerably larger lot sizes that are being proposed for the LL4 development area, a fee calculated on the basis of total area of leased land would not make the leasing of the LL4 lands economically viable having regard to facilities and lands available at other airports within the Province. As a result, it is recommended that a new development fee for the LL4 area (as described in the next paragraph) be calculated on the same basis as Regional Development Charges, namely on the basis of the gross floor area of the facility to be constructed versus the area of land to be leased.

- In respect of development outside of the Airport lands, the cost of providing municipal services would be partially recouped through the imposition of development charges. For the LL4 development area only, it is proposed that an airport specific development fee be implemented in the amount of $7.43 per square foot of base floor area of the proposed commercial development and collected pursuant to leases with tenants of these lands. This proposed fee is equivalent to the existing Regional development charge applicable to non-residential development (excluding wastewater service as the Airport operates a communal wastewater collection system) outside of the Airport. It is recommended that this fee be amended in like manner to any changes in the Regional Development charges as may occur from time to time for development outside of the Airport.

- Prospective new tenants at the Airport have expressed interest in taking an option to lease additional lands in the future should their success of their respective undertakings demand additional facility space. As an alternative to leasing vacant lands which does not provide any incentive for timely development and to facilitate the expansion plans of new prospective tenants, it is recommended that the Region adopt an annual option fee for Airport development lands which would be calculated on the basis that half of the optioned lands would be assessed at the base fee for vacant lands with the balance of
the area to be assessed at the applicable building lease rate. The Region’s fees and charges by-law has established several classes of lease rates for airport property depending upon whether the property is used for private or commercial use. As an example, an option to lease commercial land would assess half of the optioned lands at $0.04 per square foot, the base rate for vacant land, with the balance of the lands to be assessed at the building rate of $0.22 per square foot.

Agreement to Facilitate Development of LL4

Airport staff has worked with staff at the Township of Woolwich and other stakeholders in relation to the proposed development of the LL4 development area. As a requirement of entering into a lease with the Region of Waterloo, for example, new prospective tenants at the Airport will be contractually required to apply for and receive a building permit for their proposed undertaking. As well, the Region and Township propose to enter an agreement setting out the basis for collaborating with one another in respect of the LL4 development. The Township proposes to enter into an agreement that would outline the process for collaborating with the Region with respect to issues affecting airport development such as drainage, erosion control, noise abatement and site planning.

CORPORATE STRATEGIC PLAN:

The Region of Waterloo International Airport is one of the essential infrastructure components needed to create and support a climate that encourages prosperity in the Region. The provision of adequate leasehold facilities for corporate aviation will enhance business in the Region of Waterloo.

FINANCIAL IMPLICATIONS:

The proposed changes to the airport fees noted in this report will essentially result in the same amount of fees collected for the LL4 lands however the changes will make it clear to prospective tenants what development fees are applicable at the airport. The amount of fees collected will depend on the amount of land leased and the size of building constructed.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

Representatives from the Finance department have been involved in the preparation of this Report.

ATTACHMENTS:

Appendix A – Leased Land Development Area 4

PREPARED BY: John F. Hammer, Director, Transportation
               Jeff Schelling, Solicitor (Corporate)

APPROVED BY: Thomas Schmidt, Commissioner, Transportation and Environmental Services
              Gary Sosnoski, Commissioner, Corporate Resources
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 12, 2011

FILE CODE: T18-01

SUBJECT: REGION OF WATERLOO INTERNATIONAL AIRPORT – DECLARATION OF SURPLUS AND LEASE WITH DYNASTY AIR FLIGHT SERVICES ULC

RECOMMENDATION:

THAT the Regional Municipality of Waterloo declare a leasehold interest of greater than twenty-one (21) years in approximately 4.7 acres situate in the southeast corner of Part 1 on Registered Plan WR-70802 in the Geographic Township of Woolwich, Regional Municipality of Waterloo, being lot 4 on the plan of survey attached to Report CR-RS-11-022/E-11-042 dated April 12, 2011 as Appendix A (the Lands), surplus to its needs, in accordance with the Region’s Property Disposition By-law;

AND THAT the Regional Municipality of Waterloo authorize the Commissioner of Transportation and Environmental Services to enter into a Lease with Dynasty Air Flight Services ULC, an Alberta Corporation, (the Lessee) as described in Report CR-RS-11-022/E-11-042 dated April 12, 2011 with the form of the lease to be to the satisfaction of the Regional Solicitor.

SUMMARY: NIL

REPORT:

Introduction

The Region of Waterloo has entered into a conditional offer to lease lands located within the LL4 development area of the airport. LL4 refers to the leased land area so-called in the Master Plan undertaken for the airport in 2001. Construction of the servicing infrastructure, taxiway and access roads to enable development on these lands is currently underway and expected to be completed later this year to accommodate new commercial development at the airport including the development described in this report. The land that is intended to be leased is in the southeast corner of the LL4 area (depicted as Lot 4 on Appendix A attached to this report and comprising approximately 4.7 acres). A Reference Plan of Survey will be been prepared for the lands once the construction intended for the Lands is completed and the dimensions and area of the Lands may change pending final development approval of the new facility proposed for the Lands.

The lands will be leased to Dynasty Air Flight Services ULC, an Alberta corporation (the Lessee). The Lessee intends to construct a “fixed base operation” facility (“FBO”) that will be utilized for commercial aviation purposes and, in particular, the sales and distribution of fuel and storage and servicing of commercial business aircraft. The proposed lease will contain a number of terms and conditions relating to fuel handling and storage consistent with the Region’s source water protection mandate. The Lessee submitted an Expression of Interest to build this facility at the airport in response to a request for submittal of expressions of interest in the Lands issued by the airport. In addition to the response submitted by the Lessee, one other expression of interest was received from Airbiz Inc.
Based upon a number of criteria, including availability of financing/funding to construct the facility, an offer of lease has been signed with the Lessee. The Lessee requires a lease with a term of twenty (20) years with an option to renew for an additional period of up to twenty (20) years.

Pursuant to the provisions of the Region’s Property Disposition By-law, a lease of municipal property for a period of more than twenty-one years (including a renewal period) is deemed to be a disposition of property and accordingly such a leasehold interest must first be declared surplus to the needs of the Region of Waterloo. The Property Disposition By-law also requires that the disposal of surplus interest in land be advertised in the local newspaper. A ground lease with the Lessee will be executed by the Region of Waterloo after the requirements of the Region’s Property Disposition By-law have been met.

It is anticipated that the lease will take effect on August 1, 2011. The building of the FBO facility will commence in the Summer of 2011 subject to final site plan and Nav Canada approval. The proposed lease rates would be in accordance with the Region’s Fees and Charges By-law which provides for a special commercial lease rate of $0.38 per square foot for land used for buildings and a rate of $0.10 for vacant and parking lands. The combined lease revenue per year will depend upon the final approved site plan and building dimension. The area of the building is anticipated to be in excess of 20,000 square feet subject to final design. These rates will increase annually by a nominal amount taking into consideration changes in the cost of living index. The lease rates are identical to rates paid by existing operators of FBO facilities at the airport.

The total amount of space that will be leased is approximately 5.1 acres, subject to confirmation once the construction of the facility is completed and registration of the final reference plan for the Lands. The Lands are fully serviced and the Lessee will pay a fee of $7.43 per square foot of building area plus HST (see Report E-11-033/CR-RS-11-021 “Region of Waterloo International Airport – Land Development and Fees and Charges Update” dated April 12, 2011) or approximately $150,000 subject to the final design of the building which fees are intended to contribute to the overall cost of providing services for the LL4 area.

CORPORATE STRATEGIC PLAN:

The Region of Waterloo International Airport is one of the essential infrastructure components needed to create and support a climate that encourages prosperity in the Region. The provision of adequate leasehold facilities for corporate aviation will enhance business in the Region of Waterloo.

FINANCIAL IMPLICATIONS:

In addition to the lease revenue that is received from these Lands (which is estimated to be approximately $27,000 per year subject to approval of final building design), the Lessee’s clients will pay landing fees in accordance with the Region’s Fees and Charges by-law. The airport will also receive a fuel surcharge from fuel sold by the Lessee and a maintenance fee of $0.08 per square foot of leased land area. As noted in this report, the tenant will pay a one-time development fee estimated at $150,000 plus HST.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE: NIL
ATTACHMENTS:

Appendix A – lot plan depicting the Lands to be leased within the LL4 lease area of the Airport.

PREPARED BY: John Hammer, Director of Transportation
Jeff Schelling, Solicitor (Corporate)

APPROVED BY: Gary Sosnoski, Commissioner, Corporate Resources
Thomas Schmidt, Commissioner, Transportation and Environmental Services
Leased Land Area 4 – Region of Waterloo International Airport – Lands to be leased will include Lot 4
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 12, 2011

FILE CODE: TO1-20/58

SUBJECT: RESERVED CYCLING LANES, FISCHER-HALLMAN ROAD (REGIONAL ROAD 58) BETWEEN VICTORIA STREET (REGIONAL ROAD 55) AND QUEEN’S BOULEVARD, CITY OF KITCHENER

RECOMMENDATION:

THAT the Regional Municipality of Waterloo amend Traffic and Parking By-law 06-072, as amended, to add to Schedule 24, Reserved Bicycle Lanes Anytime on both sides of Fischer-Hallman Road (Regional Road 58), between Victoria Street (Regional Road 55) and Queen’s Boulevard in the City of Kitchener, as outlined in Report E-11-016 dated April 12, 2011.

SUMMARY:

NIL

REPORT:

Fischer-Hallman Road (Regional Road 58) between Victoria Street (Regional Road 55) and Queen’s Boulevard is scheduled in the 2011 Transportation Capital Program for minor widening on both sides of the road to accommodate 3.35 m through lanes and 1.25 m bike lanes. The works will also include installation of sidewalk on the east side of Fischer-Hallman Road between Highland Road and Victoria Street and resurfacing of the entire section of Fischer-Hallman Road from Victoria Street to Queen’s Boulevard.

As such, Transportation Division staff is recommending reserved cycling lanes on both sides of Fischer-Hallman Road between Victoria Street and Queen’s Boulevard. This section of Fischer-Hallman Road is identified as an on-road core route for cycling in the Regional Cycling Master Plan.

Currently, reserved cycling lanes are installed on Fischer-Hallman Road between Columbia Street and Victoria Street and from Queen’s Boulevard to Bleams Road. Installing reserved cycling lanes on this section of Fischer-Hallman Road will provide for continuous reserved cycling lanes from Columbia Street to Bleams Road.

Fischer-Hallman Road from Victoria Street to Queen’s Boulevard currently prohibits parking anytime on the east and west side of the road. Parking therefore will not be affected following the installation of the proposed reserved cycling lanes.
From February 2, 2011 to February 16, 2011, Transportation staff placed information signs along Fischer-Hallman Road requesting comments on the proposed changes from the public through the Region’s website or via telephone; an internet questionnaire was setup to receive comments and a phone number was provided. Only two responses were received which were in favour of installing reserved cycling lanes on both sides of the road. Figure 1 illustrates the proposed reserved cycling lanes.

**Figure 1 – Existing and Proposed Reserved Cycling Lanes on Fischer-Hallman Road**

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**CORPORATE STRATEGIC PLAN:**

This report addresses the Region’s goal to optimize the use of existing infrastructure (Strategic Objective 5.1).

**FINANCIAL IMPLICATIONS:**

This project includes funding for $2,470,000 in the 2011 Transportation Capital Program and will be funded from the Roads Rehabilitation Reserve Fund. The cost of installing the reserved cycling lanes along Fischer-Hallman Road between Victoria Street and Queen’s Boulevard is included in the budget for this project.
OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

The Council and Administrative Services Division will be required to prepare the amending by-law.

ATTACHMENTS:

NIL

PREPARED BY: Ashfaq Rauf, Engineering Technologist (Traffic)

APPROVED BY: Thomas Schmidt, Commissioner, Transportation and Environmental Services
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 12, 2011

FILE CODE: C06-60/E02-30/WWWMR.11

SUBJECT: 2011 WATER AND WASTEWATER MONITORING REPORT

RECOMMENDATION:

THAT the Regional Municipality of Waterloo accept the 2011 Water and Wastewater Monitoring Report summarized in Report E-11-043/P-11-041 as the account of water supply and wastewater treatment capacity as of December 31, 2010.

SUMMARY:

The 2011 Water and Wastewater Monitoring Report (2011 WWWMR) outlines the ability of the Regional water supply and wastewater treatment facilities to accommodate the current, short to medium term demands to 2021. The full report is available on the Region’s Water Services website and at the Water Services administration office. Copies of the report have been circulated to the cities of Cambridge, Kitchener and Waterloo and also to the Townships of North Dumfries, Wellesley, Wilmot and Woolwich.

Firm or system water supply capacities were adequate to meet actual maximum demands in all communities supplied by a Regional system in 2010. Wastewater treatment plant (WWTP) capacities were sufficient at all Regional plants to treat actual average flows in 2010. Firm or system water supply and wastewater capacities in 2021 are based on the implementation of works from the Region’s current capital program; the 10-year and longer term (2021) forecasts for water and wastewater capacities are anticipated to be adequate to accommodate all current development commitments. Through the Water and Wastewater Master Plans, the water and wastewater capacities are planned for the next 30 years based on the “Places to Grow” forecasts for population and employment. The allocation of remaining capacity to new development is determined by Region of Waterloo staff in cooperation with the local area municipalities.

Historically, the available capacity at each wastewater treatment plant was determined by using adjusted wastewater flows which were calculated by using an 85% confidence level on the 5-year average flows. This methodology accounts for seasonal variations in flow and trending planning commitments at the treatment plants. Adjusted flows continue to be used to evaluate the impact of seasonal variations at the WWTPs, especially in systems subject to elevated I/I contributions. A major change in the 2011 WWWMR is that the five year average will now be used for development planning and approvals. The remaining capacity at each plant will be determined by using the average flow, as outlined in the MOE guidelines for the calculation of uncommitted capacity.

This change in methodology is brought about by a number of factors: Success of the Regions water efficiency programs which is contributing to a downward trend in water usage which provides some
stability, Increased efforts of I&I reduction which is responsible for reducing the peak wet weather flows seen at the treatment plants, and Consistency with MOE Guidelines and Master Planning methodology.

Prior to the registration of a plan of subdivision has traditionally been the point at which the capacity of water and wastewater systems is committed to new subdivisions in accordance with MOE policies. However, since 2004, an increasing portion of all residential development has occurred outside of plans of subdivision. This includes development on previously existing lots of record both within the built up areas and within the greenfield areas. These units are typically townhouse or apartment units and are often registered as plans of condominium. This number is expected to increase, particularly in the City of Waterloo in the short term, as there is little remaining designated greenfield area and a large number of applications for site plans and plans of condominiums already in process.

With the adoption of the “Places to Grow: Growth Plan for the Greater Golden Horseshoe,” municipalities are now required to provide for a minimum of 40% of new residential units (phased in with full implementation by 2015) within the existing built-up areas. As a result, in future, the Region will develop a methodology to take into consideration reserving capacity for infill development. Under the current capacity allocation procedure, no servicing capacity is explicitly reserved for lands that are not within a residential plan of subdivision, including lands that have zoning in place that would otherwise allow development to proceed without additional planning approvals.

However, intrinsic to the per capita flow are a number of contributing factors above and beyond the simple residential usage. These additional factors include; Inflow and Infiltration (I/I), Industrial Commercial and Institutional (ICI) flows, and flow from developments that are not currently explicitly tracked (site plans). It is assumed that the ratio of residential population to a) employment (equivalent population), and b) non-planning act approvals such as site plans, will remain consistent in each service area from the previous year (2010) to the current year (2011).

The available capacity expressed in this report is the capacity available to service all future Planning Act approvals (subdivisions, condominiums, consents, zoning bylaw amendments and minor variances) and/or any building permits issued for development outside of residential plans of subdivision that complies with existing zoning. The current procedure for the allocation of water and wastewater capacity will be revised in future to include all greenfield development and infill development Planning Act approvals. This issue will be examined by regional and area municipal staff and is scheduled to be addressed prior to the 2012 WWWMR report.

REPORT:

Water Services produces the annual Water and Wastewater Monitoring Report with input from the Region’s Planning, Housing and Community Services (PHCS). The purpose of this report is to:

1. Document actual water use and wastewater flows;

2. Provide a basis for water use and wastewater flow forecasts required in preparing the capital budgets and user rates;

3. Document water production and wastewater treatment capacities;

4. Update Regional Council with respect to remaining uncommitted capacities of water supply and wastewater treatment infrastructure; and

5. Provide a basis for engineering staff to provide comment on the water and wastewater aspects of development applications.
In addition, the 2011 WWWMR report will be one of the inputs used in preparing the 2012 water and wastewater capital budget, longer term water and wastewater capital forecast, and in formulating responses to development applications.

Main Changes from the 2010 WWWMR

The main changes from the 2010 WWWMR are as follows:

- At a City of Cambridge Council Meeting on February 8, 2010, a council resolution was passed that wastewater allocation be formally reserved for the Boxwood Industrial Subdivision in the Preston Wastewater Service Area. Further analysis was conducted and a commitment of 1,860 m³/d will be included in the 2011 commitments for the Preston WWTP. The committed flow will be reviewed annually and adjusted according to the rate of build-out of the subdivision, respective of the council resolution.

- Historically, the available capacity at each wastewater treatment plant was determined by using adjusted wastewater flows which were calculated by using an 85% confidence level on the 5-year average flows. This methodology accounts for seasonal variations in flow and trending planning commitments at the treatment plants. Adjusted flows continue to be used to evaluate the impact of seasonal variations at the WWTPs, especially in systems subject to elevated I/I contributions. A major change in the 2011 WWWMR is that the five year average will now be used for development planning and approvals. Both the average flow and the adjusted average flow are shown on the charts in Appendix B, but remaining capacity at each plant will be determined by using the average flow, as outlined in the MOE guidelines for the calculation of uncommitted capacity.

- Water consumption patterns and wastewater flows are a function of yearly weather fluctuations. In 2010, the annual precipitation through the year was generally close to the average amount. However, the snow melt that typically occurs around March was less than average due to low levels of precipitation in the winter of 2009-2010.

2011 Water Supply Capacity and Commitments

Firm or system water supply capacities were adequate to meet actual maximum demands in all communities supplied by a Regional system in 2010. The 10-year and longer forecasts are anticipated to adequately accommodate all current development commitments based upon the implementation of the Region’s current capital program. Table 1, attached, summarizes the remaining water capacity as of December 31, 2010.

The Integrated Urban System (IUS) (Cambridge, Kitchener, Waterloo, Elmira and St. Jacobs water systems) has 51,996 m³/d of remaining capacity, which is equivalent to 129,800 people.

The Baden/New Hamburg water system has 6,888 m³/d of remaining capacity, which is equivalent to 12,100 people.

The Ayr water system has 2,764 m³/d of remaining capacity, which is equivalent to 5,800 people.

The Wellesley water system has 1,905 m³/d of remaining capacity, which is equivalent to 5,800 people.
The St. Clements water system has 1,308 m$^3$/d of remaining capacity, which is equivalent to 3,900 people.

**Small Water Supply Systems**

There are 12 small water supply systems owned and operated by the Region. These systems include: Conestogo (Conestoga Golf Course and Conestoga Plains), Maryhill (Maryhill and Village Heights) and West Montrose in Woolwich; Linwood and Heidelberg (reported as one system including that portion of Heidelberg in Woolwich) in Wellesley; Foxboro Green, New Dundee and St. Agatha in Wilmot; and Roseville and Branchton Meadows in North Dumfries.

All numbers reported, excluding actual average and maximum day demand figures, are design numbers based on MOE water usage guidelines for small communal water supply systems. Most of these systems were designed to only service specific subdivisions in the respective settlement areas and have no additional capacity to service units beyond those subdivisions. Given the complexity of calculating available capacity for the small systems, available system capacity will be evaluated on an individual basis prior to commenting on development applications. Table 2 summarizes the data on small water systems.

**2011 Wastewater Treatment Capacity and Commitments**

WWTP capacities were sufficient at all Regional plants to treat actual average flows in 2010. The 10-year and longer forecasts are anticipated to adequately accommodate all current development commitments based upon the implementation of the Region’s current capital program. Table 3 summarizes the remaining wastewater capacity as of December 31, 2010.

Historically, the available capacity at each wastewater treatment plant was determined by using the adjusted flow per capita. The adjusted flow is an adjusted average flow, which corresponds to a flow with an 85% probability of not being exceeded. The 85% flow reflects seasonal impacts on the wastewater flows such as inflow and infiltration (I&I), largely caused by rainfall and snow thawing.

A major change in the 2011 WWWMR is that the five year average will now be used for development planning and approvals, while the adjusted flow will still be used to evaluate the impact of seasonal variations at the WWTPs.

This change in methodology was brought about by a number of factors:

- Success of the Regions water efficiency programs which is contributing to a downward trend in residential water usage which provides some stability;
- Increased efforts of I&I reduction which is responsible for reducing the peak wet weather flows seen at the treatment plants; and
- Consistency with MOE guideline and Master Planning methodology.

The Preston WWTP has a rated capacity of 16,820 m$^3$/d. The treatment capacity had previously been limited to 14,520 m$^3$/d due to the additional organic loading from the Industrial Road Service Area (IRSA). Beginning in the summer of 2009, the effluent from the IRSA has been gradually diverted from Preston WWTP to Galt WWTP, as recommended in the 2007 Wastewater Master Plan. At year end 2010, approximately 75% of the effluent was being diverted to Galt. The benefit to Preston WWTP is twofold: the reduction for the organic loading will no longer be required and the actual hydraulic loading to Preston will be reduced. The rated capacity of the Preston WWTP is no longer restricted by the organic loading, and the rated capacity is 16,820 m$^3$/d. Due to the robust nature of the Galt WWTP there will be no reduction in rated capacity at Galt.
City of Cambridge Council approved a staff report recommending that wastewater allocation be reserved for the Boxwood Industrial Subdivision in the Preston Wastewater Service Area. Through consultation with the City and their consultant Dillon, the capacity that is to be reserved for Boxwood is 1,860 m$^3$/d. This number will be assessed annually and adjusted according to the rate of build out of the subdivision.

In 2008, the Region and the Township of Wilmot met to discuss the wastewater treatment capacity at the Baden-New Hamburg Wastewater Treatment Plant. Capacity at the time was very low due to the observed flows during wet seasons and the large number of development commitments. Since that time, the Township has been conducting I/I improvement work which is reflected in lower seasonal flows being observed at the plant. It was suggested in the meeting that once treatment capacity became available at the plant, consideration could be given to reserving some of that capacity for the Wilmot Employment Lands. With the observed benefits from the I/I work, and by using the MOE approved 5-year average flows for determining available capacity, the available capacity at the plant at year end 2010 is 525 m$^3$/d, or 1,556 people. The Township of Wilmot may want to consider reserving capacity for the employment lands. The Region will be open to discussing this option further with Township staff.

In 1998, the Township of Woolwich and the Region entered into a 10-year agreement to address I/I issues in Elmira and St. Jacobs, which ended on December 31, 2008. The Region has initiated a Wastewater Master Plan, to be completed summer 2012, to optimize wastewater treatment in these two communities. Recommendations in this master plan will be considered in future WWMRs.

The Region has completed an I/I study for the Village of Wellesley, in the Township of Wellesley in early 2008. This study identified deficiencies in the collection system and makes recommendations for improvements. The Region has completed work to improve the I/I in the Wellesley collection system in 2009. Flow monitoring at the Wellesley WWTP indicates that the repairs generally resulted in a decrease in I/I related flows at the plant. By using the average flow, the corrective work completed to reduce the I/I issues is being realized and it is reflected in the available capacity at the treatment plant.

Implementation of the Region’s wastewater capital program is anticipated to provide adequate wastewater treatment to accommodate all planned development until 2021 and beyond. Therefore, the Region’s overall water supply and wastewater treatment commitments are provided for, given the accomplishment of projects now in the Region's capital budgets and longer term capital forecasts.

**Servicing Agreements**

Servicing commitments are made through separate servicing agreements between the Region and the developer, which are executed once a draft approved plan of subdivision or a consent is ready to proceed to registration/final approval. Developers seek an agreement for servicing just prior to registration of the plan of subdivision or final approval. The servicing agreement expires within six to 18 months of being signed, at which time the developer would be required to seek a new commitment for servicing if registration of the plan of subdivision or final approval of the consent has not taken place.

Since 1996, the time of the registration of a plan of subdivision has traditionally been the point at which the capacity of water and wastewater systems is committed to new subdivisions in accordance with MOE policies. However, since 2004, a significant portion of all residential development has occurred outside of plans of subdivision. This includes development on previously existing lots of record both within the built up areas and within the greenfield areas. These units are typically townhouse or apartment units and are often registered as plans of condominium. This number is expected to increase particularly in the City of Waterloo as there is little remaining designated greenfield area and a large number of applications for site plans and plans of condominiums already in process.
Section 51 (24) (i) of the Planning Act obliges the Region to ensure the “adequacy of utilities and municipal services.” In addition ROP Policy 5.D.1 states that the “servicing requirements for planned development and projected growth will be monitored to ensure that the total system capacities are not exceeded, and to provide sufficient lead time for the planning, design, approval, financing and construction of new facilities.”

In 1996, Regional Council by Report PC-96-061/ E-96-138 revised the conditions of draft approval for plans of subdivision to include a new condition requiring an Agreement for Servicing. However, before future, unbuilt service capacity is considered, three criteria must be met:

1. The capacity expansion project must be imminent for construction and thereby included within the first five years of the 10 Year Capital Forecast;
2. There must be a sound technical basis for the anticipated new capacity associated with the project, as a result of completion of the Environmental Assessment, a suitable master plan or other Regional engineering evaluation; and,
3. Approval of new draft plans of subdivision will be guided by Area Municipal Staging of Development programs and will not exceed 50% of the estimated capacity of major planned service capacity projects or 75% of minor planned projects.

It is important to note that the actual service capacity of a water or wastewater facility to be delivered from a future project cannot be guaranteed until a Certificate of Approval is issued by the MOE.

The Region is near completion of a Water and Wastewater Treatment Master Plan for the New Hamburg/Baden service area. This study will determine the best wastewater treatment alternative to service this community in the long term. The Region has begun a similar study for the Elmira and St. Jacobs service areas. Funds for the implementation of projects identified in these studies will be included in future Water and Wastewater Capital Programs. The 2010 Wastewater Capital Program already includes funds to ensure adequate future capacity for servicing the Hespeler service area.

With the adoption of the “Places to Grow: Growth Plan for the Greater Golden Horseshoe,” municipalities are now required to provide for a minimum of 40% of new residential units (phased in with full implementation by 2015) within the existing built-up areas. As a result, consideration needs to be given to reserving capacity for infill development. Under the current water and wastewater capacity allocation procedure, no servicing capacity is reserved for lands that are not within a residential plan of subdivision, including lands that have zoning in place that would otherwise allow development to proceed without additional planning approvals. The available capacity expressed in this report is the capacity available to service all future Planning Act approvals (subdivisions, condominiums, consents, zoning bylaw amendments and minor variances) and/or any building permits issued for development outside of residential plans of subdivision that complies with existing zoning.

To address this issue, Regional staff will undertake research over 2011 and will consult with the area municipalities and the development industry to develop a potential revised servicing allocation procedure for the allocation of water and wastewater capacity.

CORPORATE STRATEGIC PLAN:

The Water and Wastewater Monitoring Report supports “Focus Area 2: Growth Management - Manage and shape growth to ensure a livable, healthy, thriving and sustainable Waterloo Region.”
FINANCIAL IMPLICATIONS:

The financial implications of this report will be addressed in the preparation of the 2012 water and wastewater capital programs.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE

The Information & Research Group in the Planning, Housing and Community Services Department has been consulted in the preparation of this report.

ATTACHMENTS:

Table 1: Remaining Water and Wastewater Capacity as of December 31, 2010
Table 2: Small Rural Water System Summary as of December 31, 2010
Table 3: Commitments as of December 31, 2010
Table 4: Remaining Water and Wastewater Capacity as of December 31, 2010 (IMPERIAL)
Table 5: Small Rural Water System Summary as of December 31, 2010 (IMPERIAL)
Table 6: Commitments as of December 31, 2010 (IMPERIAL)

PREPARED BY:  Nathan Morris, Coordinator, Servicing and Development Planning
               Kevin Dolishny, Senior Project Engineer, Servicing and Development Planning
               Kevin Eby, Director of Community Planning

APPROVED BY:  Thomas Schmidt, Commissioner, Transportation and Environmental Services
               Rob Horne, Commissioner, Planning, Housing and Community Services
<table>
<thead>
<tr>
<th>WATER</th>
<th>2010 CAPACITY (1,000 m³/d)</th>
<th>AVERAGE MEASURED FLOW (1,000 m³/d)</th>
<th>COMMITTED FLOW (1,000 m³/d)</th>
<th>REMAINING CAPACITY (1,000 m³/d)</th>
<th>AVERAGE FLOWS PER CAPITA (m³/d/c)</th>
<th>REMAINING CAPACITY (PEOPLE)</th>
<th>( F = D / E \times 1,000 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTEGRATED URBAN WATER SYSTEM</td>
<td>269.32</td>
<td>194.57</td>
<td>22.76</td>
<td>52.00</td>
<td>0.4006</td>
<td>129,781</td>
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<tr>
<td>BADEN-NEW HAMBURG</td>
<td>12.10</td>
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<td>0.88</td>
<td>6.89</td>
<td>0.3681</td>
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<tr>
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</tr>
<tr>
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</tr>
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<td>38.21</td>
<td>0.3268</td>
<td>116,948</td>
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</tr>
<tr>
<td>WATERLOO WWTP</td>
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<td>3.68</td>
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<td>10,097</td>
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<td>GALT WWTP</td>
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<td>0.4329</td>
<td>43,240</td>
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</tr>
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<td>PRESTON WWTP</td>
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<td>0.5530</td>
<td>6,562</td>
<td></td>
</tr>
<tr>
<td>HESPELER WWTP</td>
<td>9.32</td>
<td>8.30</td>
<td>0.22</td>
<td>0.81</td>
<td>0.3410</td>
<td>2,369</td>
<td></td>
</tr>
<tr>
<td>ELMIRA WWTP</td>
<td>7.80</td>
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<td>0.06</td>
<td>3.62</td>
<td>0.4312</td>
<td>8,399</td>
<td></td>
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<tr>
<td>BADEN-NEW HAMBURG WWTP</td>
<td>5.20</td>
<td>3.87</td>
<td>0.81</td>
<td>0.52</td>
<td>0.3373</td>
<td>1,556</td>
<td></td>
</tr>
<tr>
<td>AYR WWTP</td>
<td>3.00</td>
<td>1.32</td>
<td>0.64</td>
<td>1.03</td>
<td>0.3144</td>
<td>3,290</td>
<td></td>
</tr>
<tr>
<td>ST. JACOBS WWTP</td>
<td>1.45</td>
<td>1.00</td>
<td>0.00</td>
<td>0.45</td>
<td>0.5768</td>
<td>779</td>
<td></td>
</tr>
<tr>
<td>WELLESLEY WWTP</td>
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<td>0.13</td>
<td>0.24</td>
<td>0.2564</td>
<td>921</td>
<td></td>
</tr>
</tbody>
</table>

(A) See Water Distribution Master Plan and Wastewater Treatment Master Plan for capacity details of each system
(B) See section 2.4 and 2.6 and appendix B & C of report for details of how average flow is calculated for individual systems
(C) See Table 3 for details about how committed flow is calculated
(D) Both Water systems and Wastewater systems average flow equals the average of the previous 5 years per capita flow
(E) See Section 2.4 and 2.5 of report for an explanation of average flows per capita
(F) Remaining Capacity divided by Average Flow Per Capita multiplied by 1000. Any new service in the small rural systems must be reviewed by the Region of Waterloo Water Services staff and will be evaluated on a case by case basis
<table>
<thead>
<tr>
<th>System Name</th>
<th>2010 Capacity (m$^3$/d)</th>
<th>Adjusted Measured Flow (m$^3$/d)</th>
<th>Committed Flow (m$^3$/d)</th>
<th>Remaining Capacity (m$^3$/d)</th>
<th>Adjusted Flows per Capita (m$^3$/d/c)</th>
<th>Remaining Capacity (People)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOOLWICH CONESTOGA GOLF COURSE</td>
<td>601</td>
<td>540</td>
<td>N/A</td>
<td>61</td>
<td>1.0437</td>
<td>Case by Case</td>
</tr>
<tr>
<td>CONESTOGA PLAINS</td>
<td>786</td>
<td>194</td>
<td>N/A</td>
<td>592</td>
<td>0.5207</td>
<td>Case by Case</td>
</tr>
<tr>
<td>MARY HILL</td>
<td>157</td>
<td>115</td>
<td>N/A</td>
<td>42</td>
<td>0.7194</td>
<td>Case by Case</td>
</tr>
<tr>
<td>MARY HILL VILLAGE HEIGHTS</td>
<td>820</td>
<td>107</td>
<td>N/A</td>
<td>713</td>
<td>0.7254</td>
<td>Case by Case</td>
</tr>
<tr>
<td>WEST MONTROSE</td>
<td>238</td>
<td>154</td>
<td>N/A</td>
<td>84</td>
<td>0.8682</td>
<td>Case by Case</td>
</tr>
<tr>
<td>WEL HEIDELBERG</td>
<td>829</td>
<td>455</td>
<td>N/A</td>
<td>374</td>
<td>0.4513</td>
<td>Case by Case</td>
</tr>
<tr>
<td>LINWOOD</td>
<td>605</td>
<td>345</td>
<td>N/A</td>
<td>260</td>
<td>0.4078</td>
<td>Case by Case</td>
</tr>
<tr>
<td>WILMOT FOBORO</td>
<td>527</td>
<td>146</td>
<td>N/A</td>
<td>381</td>
<td>0.3631</td>
<td>Case by Case</td>
</tr>
<tr>
<td>NEW DUNDEE</td>
<td>983</td>
<td>427</td>
<td>N/A</td>
<td>556</td>
<td>0.3754</td>
<td>Case by Case</td>
</tr>
<tr>
<td>ST AGATHA SA3/SA4</td>
<td>518</td>
<td>66</td>
<td>N/A</td>
<td>452</td>
<td>0.8720</td>
<td>Case by Case</td>
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<tr>
<td>ND ROSEVILLE</td>
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<td>195</td>
<td>N/A</td>
<td>163</td>
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<td>Case by Case</td>
</tr>
<tr>
<td>BRANCHTON</td>
<td>130</td>
<td>114</td>
<td>N/A</td>
<td>16</td>
<td>0.9486</td>
<td>Case by Case</td>
</tr>
</tbody>
</table>

(A) See Water Distribution Master Plan and Wastewater Treatment Master Plan for capacity details of each system.
(B) See section 2.4 and 2.6 and appendix B & C of report for details of how average flow is calculated for individual systems.
(C) See Table 3 for details about how committed flow is calculated.
(D) Both Water systems and Wastewater systems average flow equals the average of the previous 5 years per capita flow.
(E) See Section 2.4 and 2.5 of report for an explanation of average flows per capita.
(F) Remaining Capacity divided by Average Flow Per Capita multiplied by 1000. Any new service in the small rural systems must be reviewed by the Region of Waterloo Water Services staff and will be evaluated on a case by case basis.
### TABLE 3: COMMITMENTS AS OF DECEMBER 31, 2010

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C = A x B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMMITTED</strong></td>
<td><strong>AVERAGE</strong></td>
<td><strong>COMMITMENTS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>POPULATION</strong></td>
<td><strong>FLOWS PER</strong></td>
<td><strong>(PEOPLE)</strong></td>
<td><strong>CAPITA (m$^3$/d/c)</strong></td>
</tr>
<tr>
<td>INTEGRATED URBAN WATER SYSTEM</td>
<td>56,799</td>
<td>0.4006</td>
<td>22,756</td>
</tr>
<tr>
<td>BADEN-NEW HAMBURG</td>
<td>2,393</td>
<td>0.3681</td>
<td>881</td>
</tr>
<tr>
<td>AYR WATER SYSTEM</td>
<td>1,552</td>
<td>0.4793</td>
<td>744</td>
</tr>
<tr>
<td>WELLESLEY</td>
<td>521</td>
<td>0.3269</td>
<td>170</td>
</tr>
<tr>
<td>ST. CLEMENTS</td>
<td>37</td>
<td>0.3331</td>
<td>12</td>
</tr>
<tr>
<td>KITCHENER WWTP</td>
<td>32,458</td>
<td>0.3268</td>
<td>10,606</td>
</tr>
<tr>
<td>WATERLOO WWTP</td>
<td>17,457</td>
<td>0.3649</td>
<td>6,371</td>
</tr>
<tr>
<td>GALT WWTP</td>
<td>5,655</td>
<td>0.4329</td>
<td>2,448</td>
</tr>
<tr>
<td>PRESTON WWTP</td>
<td>235</td>
<td>0.5530</td>
<td>130</td>
</tr>
<tr>
<td>HESPELER WWTP</td>
<td>631</td>
<td>0.3410</td>
<td>215</td>
</tr>
<tr>
<td>ELMIRA WWTP</td>
<td>146</td>
<td>0.4312</td>
<td>63</td>
</tr>
<tr>
<td>BADEN-NEW HAMBURG WWTP</td>
<td>2,393</td>
<td>0.3373</td>
<td>807</td>
</tr>
<tr>
<td>AYR WWTP</td>
<td>1,552</td>
<td>0.3144</td>
<td>488</td>
</tr>
<tr>
<td>ST. JACOBS WWTP</td>
<td>0</td>
<td>0.5768</td>
<td>0</td>
</tr>
<tr>
<td>WELLESLEY WWTP</td>
<td>521</td>
<td>0.2564</td>
<td>134</td>
</tr>
</tbody>
</table>

(A) See appendix D for a detailed breakdown of committed population from known development

(B) See Section 2.4 and 2.5 for an explanation of the Average Flow Per Capita Per Day in Column “B”

(C) Column ‘A’ multiplied by column ‘B’
TABLE 4: REMAINING WATER AND WASTEWATER CAPACITY AS OF DECEMBER 31, 2010 (IMPERIAL)

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D = A - (B+C)</th>
<th>E</th>
<th>F = D * 1,000,000/ E</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTEGRATED URBAN WATER SYSTEM</td>
<td>59.24</td>
<td>42.80</td>
<td>5.006</td>
<td>11.44</td>
<td>88</td>
<td>129,781</td>
</tr>
<tr>
<td>BADEN-NEW HAMBURG</td>
<td>2.66</td>
<td>0.64</td>
<td>0.194</td>
<td>1.82</td>
<td>55</td>
<td>18,715</td>
</tr>
<tr>
<td>AYR WATER SYSTEM</td>
<td>1.22</td>
<td>0.34</td>
<td>0.164</td>
<td>0.71</td>
<td>81</td>
<td>5,766</td>
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<td>WELLESLEY</td>
<td>0.66</td>
<td>0.17</td>
<td>0.037</td>
<td>0.45</td>
<td>61</td>
<td>5,828</td>
</tr>
<tr>
<td>ST. CLEMENTS</td>
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</tr>
<tr>
<td>WASTEWATER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KITCHENER WWTP</td>
<td>26.99</td>
<td>16.25</td>
<td>2.333</td>
<td>8.41</td>
<td>72</td>
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<td>12.33</td>
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<td>1.401</td>
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<td>80</td>
<td>10,097</td>
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<td>GALT WWTP</td>
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<td>7.84</td>
<td>0.538</td>
<td>4.12</td>
<td>95</td>
<td>43,240</td>
</tr>
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<td>PRESTON WWTP</td>
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<td>2.46</td>
<td>0.438</td>
<td>0.80</td>
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<td>6,562</td>
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<td>0.18</td>
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<td>95</td>
<td>8,399</td>
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<td>69</td>
<td>3,290</td>
</tr>
<tr>
<td>ST. JACOBS WWTP</td>
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<td>0.22</td>
<td>0.000</td>
<td>0.10</td>
<td>127</td>
<td>779</td>
</tr>
<tr>
<td>WELLESLEY WWTP</td>
<td>0.24</td>
<td>0.16</td>
<td>0.029</td>
<td>0.05</td>
<td>56</td>
<td>921</td>
</tr>
</tbody>
</table>

(A) See Water Distribution Master Plan and Wastewater Treatment Master Plan for capacity details of each system
(B) See section 2.4 and 2.6 and appendix B & C of report for details of how average flow is calculated for individual systems
(C) See Table 3 for details about how committed flow is calculated
(D) Both Water systems and Wastewater systems average flow equals the average of the previous 5 years per capita flow
(E) See Section 2.4 and 2.5 of report for an explanation of average flows per capita
(F) Remaining Capacity divided by Average Flow Per Capita multiplied by 1000. Any new service in the small rural systems must be reviewed by the Region of Waterloo Water Services staff and will be evaluated on a case by case basis
## TABLE 5: SMALL RURAL WATER SYSTEM SUMMARY AS OF DECEMBER 31, 2010 (IMPERIAL)

<table>
<thead>
<tr>
<th></th>
<th>A (2010 CAPACITY (1,000 g/d))</th>
<th>B (AVERAGE MEASURED FLOW (1,000 g/d))</th>
<th>C (COMMITTED FLOW (g/d))</th>
<th>D = A - B</th>
<th>E (REMAINING CAPACITY (1,000 g/d))</th>
<th>F (AVERAGE FLOWS PER CAPITA (g/d/c))</th>
<th>REMAINING CAPACITY (PEOPLE)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Woolwich</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conestoga Golf Course</td>
<td>132</td>
<td>119</td>
<td>N/A</td>
<td>13</td>
<td>230</td>
<td>204</td>
<td>Case by Case</td>
</tr>
<tr>
<td>Conestoga Plains</td>
<td>173</td>
<td>43</td>
<td>N/A</td>
<td>130</td>
<td>115</td>
<td>116</td>
<td>Case by Case</td>
</tr>
<tr>
<td>Mary Hill</td>
<td>35</td>
<td>25</td>
<td>N/A</td>
<td>9</td>
<td>158</td>
<td>151</td>
<td>Case by Case</td>
</tr>
<tr>
<td>Mary Hill Village Heights</td>
<td>180</td>
<td>23</td>
<td>N/A</td>
<td>157</td>
<td>160</td>
<td>163</td>
<td>Case by Case</td>
</tr>
<tr>
<td>West Montrose</td>
<td>52</td>
<td>34</td>
<td>N/A</td>
<td>19</td>
<td>191</td>
<td>194</td>
<td>Case by Case</td>
</tr>
<tr>
<td><strong>Wel</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heidelberg</td>
<td>182</td>
<td>100</td>
<td>N/A</td>
<td>82</td>
<td>99</td>
<td>95</td>
<td>Case by Case</td>
</tr>
<tr>
<td>Linwood</td>
<td>133</td>
<td>76</td>
<td>N/A</td>
<td>57</td>
<td>90</td>
<td>86</td>
<td>Case by Case</td>
</tr>
<tr>
<td><strong>Wilmot</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foxboro</td>
<td>116</td>
<td>32</td>
<td>N/A</td>
<td>84</td>
<td>80</td>
<td>78</td>
<td>Case by Case</td>
</tr>
<tr>
<td>New Dundee</td>
<td>216</td>
<td>94</td>
<td>N/A</td>
<td>122</td>
<td>83</td>
<td>80</td>
<td>Case by Case</td>
</tr>
<tr>
<td>St Agatha SA3/SA4</td>
<td>114</td>
<td>15</td>
<td>N/A</td>
<td>99</td>
<td>192</td>
<td>190</td>
<td>Case by Case</td>
</tr>
<tr>
<td><strong>Nd</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roseville</td>
<td>79</td>
<td>43</td>
<td>N/A</td>
<td>36</td>
<td>148</td>
<td>140</td>
<td>Case by Case</td>
</tr>
<tr>
<td>Branchton</td>
<td>29</td>
<td>25</td>
<td>N/A</td>
<td>3</td>
<td>209</td>
<td>206</td>
<td>Case by Case</td>
</tr>
</tbody>
</table>

(A) See Water Distribution Master Plan and Wastewater Treatment Master Plan for capacity details of each system

(B) See section 2.4 and 2.6 and appendix B & C of report for details of how average flow is calculated for individual systems

(C) See Table 3 for details about how committed flow is calculated

(D) Both Water systems and Wastewater systems average flow equals the average of the previous 5 years per capita flow

(E) See Section 2.4 and 2.5 of report for an explanation of average flows per capita

(F) Remaining Capacity divided by Average Flow Per Capita multiplied by 1000. Any new service in the small rural systems must be reviewed by the Region of Waterloo Water Services staff and will be evaluated on a case by case basis
TABLE 6: COMMITMENTS AS OF DECEMBER 31, 2010 (IMPERIAL)

<table>
<thead>
<tr>
<th>WATER</th>
<th>COMMITTED POPULATION (PEOPLE)</th>
<th>ADJUSTED FLOWS PER CAPITA (g/d/c)</th>
<th>COMMITMENTS (1,000 g/d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTEGRATED URBAN WATER SYSTEM</td>
<td>56,799</td>
<td>88</td>
<td>5,006</td>
</tr>
<tr>
<td>BADEN-NEW HAMBURG</td>
<td>2,393</td>
<td>81</td>
<td>194</td>
</tr>
<tr>
<td>AYR WATER SYSTEM</td>
<td>1,552</td>
<td>105</td>
<td>164</td>
</tr>
<tr>
<td>WELLESLEY</td>
<td>521</td>
<td>72</td>
<td>37</td>
</tr>
<tr>
<td>ST. CLEMENTS</td>
<td>37</td>
<td>73</td>
<td>3</td>
</tr>
<tr>
<td>WASTEWATER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KITCHENER WWTP</td>
<td>32,458</td>
<td>72</td>
<td>2,333</td>
</tr>
<tr>
<td>WATERLOO WWTP</td>
<td>17,457</td>
<td>80</td>
<td>1,401</td>
</tr>
<tr>
<td>GALT WWTP</td>
<td>5,655</td>
<td>95</td>
<td>538</td>
</tr>
<tr>
<td>PRESTON WWTP</td>
<td>235</td>
<td>122</td>
<td>29</td>
</tr>
<tr>
<td>HESPELER WWTP</td>
<td>399</td>
<td>75</td>
<td>47</td>
</tr>
<tr>
<td>ELMIRA WWTP</td>
<td>146</td>
<td>95</td>
<td>14</td>
</tr>
<tr>
<td>BADEN-NEW HAMBURG WWTP</td>
<td>2,393</td>
<td>74</td>
<td>178</td>
</tr>
<tr>
<td>AYR WWTP</td>
<td>1,552</td>
<td>69</td>
<td>107</td>
</tr>
<tr>
<td>ST. JACOBS WWTP</td>
<td>0</td>
<td>127</td>
<td>0</td>
</tr>
<tr>
<td>WELLESLEY WWTP</td>
<td>521</td>
<td>56</td>
<td>29</td>
</tr>
</tbody>
</table>

(A) See appendix D for a detailed breakdown of committed population from known development
(B) See Section 2.4 and 2.5 for an explanation of the Average Flow Per Capita Per Day in Column 'B'
(C) Column 'A' multiplied by column 'B'
RECOMMENDATION:


SUMMARY:

In accordance with the Regional By-law 01-028, as amended, the Commissioner of Planning, Housing and Community Services has:

1. Approved the following part lot control exemption by-law;
2. Accepted the following plan of condominium;
3. Draft approved the following plan of condominium;
4. Released for registration the following plans of subdivision.

REPORT:

City of Cambridge

1. **Plan of Condominium Application 30CDM-11101**
   - Date Accepted: February 9, 2011
   - Applicant: Haastown Holdings (Cambridge) Inc.
   - Location: 130-170 Water Street North
   - Proposal: To permit the development of 113 condominium units.
   - Processing Fee: Paid January 31, 2011

2. **Registration of Plan of Subdivision 30T-07104**
   - Draft Approval Date: August 6, 2010
   - Phase: Entire Plan
   - Applicant: Cook Homes Ltd.
   - Location: Bismark Drive
   - Proposal: To permit the development of 29 single detached units.
   - Processing Fee: Paid December 21, 2010
   - Commissioner’s Release: February 4, 2011
City of Waterloo

1. **Draft Approval of Plan of Condominium 30CDM-10404**
   - Applicant: 1568532 Ontario Limited and 1266267 Ontario Limited
   - Location: 80 Churchill Street
   - Proposal: To permit the development of 39 townhouse units.
   - Processing Fee: Paid January 24, 2011
   - Commissioner’s Approval: February 15, 2011
   - Came Into Effect: March 8, 2011

2. **Registration of Draft Plan of Subdivision 30T-09404**
   - Draft Approval Date: July 8, 2010
   - Phase: Phases 2 and 3
   - Applicant: Kenmore Developments Inc.
   - Location: 555 Chablis Drive
   - Proposal: To permit the development of 16 townhouse units.
   - Processing Fee: Paid February 4, 2011
   - Commissioner’s Release: February 18, 2011

Township of Woolwich

1. **Part Lot Control Exemption By-law 5-2011**
   - Applicant: Empire Communities (Riverland) LP
   - Location: Trowbridge Street
   - Proposal: To permit the creation of 8 townhouse units.
   - Processing Fee: Paid January 27, 2011
   - Commissioner’s Approval: February 4, 2011

---

**Residential Subdivision Activity January 1, 2011 to February 28, 2011**

<table>
<thead>
<tr>
<th>Area Municipality</th>
<th>Units in Residential Registered Plans</th>
<th>Residential Units Draft Approved</th>
<th>Pending Plans (Units Submitted)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Kitchener</em></td>
<td>30</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Waterloo</td>
<td>16</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cambridge</td>
<td>57</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Woolwich</td>
<td>64</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wilmot</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>North Dumfries</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wellesley</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Region of Waterloo</td>
<td>167</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*The acceptance and/or draft approval of plans of subdivision and condominium processed by the City of Kitchener under delegated approval authority are not included in this table.*

For comparison, the following table has also been included:
Residential Subdivision Activity January 1, 2010 to February 28, 2010

<table>
<thead>
<tr>
<th>Area Municipality</th>
<th>Units in Residential Registered Plans</th>
<th>Residential Units Draft Approved</th>
<th>Pending Plans (Units Submitted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Kitchener</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Waterloo</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cambridge</td>
<td>99</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Woolwich</td>
<td>38</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wilmot</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>North Dumfries</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wellesley</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Region of Waterloo</td>
<td>137</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*The acceptance and/or draft approval of plans of subdivision and condominium processed by the City of Kitchener under delegated approval authority are not included in this table.

Area Municipal Consultation/Coordination

These planning approvals, including associated consultation with Area Municipalities, have been completed in accordance with the Planning Act. All approvals contained in this report were supported by the Area Municipal councils and/or staff.

CORPORATE STRATEGIC PLAN:

This report reflects actions taken by the Commissioner in accordance with the delegation By-law adopted by Council consistent with the streamlining objectives reflected in Focus Area 1: Manage Regional Growth to Enhance Quality of Life in the Corporate Strategic Plan.

FINANCIAL IMPLICATIONS:

NIL

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

NIL

PREPARED BY: Andrea Banks, Program Assistant

APPROVED BY: Rob Horne, Commissioner, Planning, Housing and Community Services
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 12, 2011 FILE CODE: D03-80/ESF

SUBJECT: ALLOCATION OF ENVIRONMENTAL STEWARDSHIP FUND FOR 2011

RECOMMENDATION:

THAT the Regional Municipality of Waterloo approve allocations totalling a maximum of $165,721 from the Environmental Stewardship Fund as described in Report P-11-035, particularly in Attachment A, dated April 12, 2011.

SUMMARY:

The Environmental Stewardship Fund was established by Council in the 2008 budget to fund environmental projects throughout the Region with special emphasis on enhancing natural areas and Environmentally Sensitive Landscapes (ESLs). An interim framework for administering the fund was endorsed by Regional Council on April 29, 2009, and amended in 2010 to accommodate an unexpected number of schoolyard greening projects in the initial batch of applications. On February 23, 2010, Council approved the allocation of approximately $182,000 to fund 25 projects. Following approval of the Regional Official Plan (ROP), staff sent out Environmental Stewardship Fund Application packages to all the registered landowners within the newly-designated Dumfries Carolinian and Beverly Environmentally Sensitive Landscapes (ESLs). The application form was also posted on the Regional website. By the deadline of March 24, 2011, 28 applications had been received.

Staff has reviewed the applications submitted to date, and followed up with applicants to further clarify the items for which financial support was requested. Staff is now recommending that the 27 projects listed in Attachment A be funded at this time. One application has been deferred due to insufficient detail and difficulty in contacting the applicant. The projects cover a range of stewardship-related activities, and are anticipated to involve many of the Region's citizens, and in particular significant numbers of elementary and secondary students. The individual projects are summarized in Attachment A. The total value of the projects is calculated to be $621,506, of which $165,721 is recommended to be funded from the Environmental Stewardship Fund. Thus, for every dollar recommended from the Stewardship Fund, another $2.75 is to be contributed to environmental stewardship projects from other funding sources, from the applicants themselves, or in volunteer labour.

REPORT:

The Environmental Stewardship Fund was established by Council to fund environmental projects throughout the Region with special emphasis on enhancing natural areas and Environmentally Sensitive Landscapes (ESLs). As of March 31, 2011, nine of the 25 projects approved in 2010 are complete, and $104,692 has been disbursed.
On April 29, 2009, Council endorsed an interim framework for the administration of the Environmental Stewardship Fund. Due to the fact that seven of the 25 submissions in the initial round of applications involved schoolyard greening projects, the framework had to be amended to set rules for this unanticipated type of project. The current framework contains seven categories of projects that may be considered for funding. The seven categories are:

1. Enhancement and restoration of natural areas and the linkages and corridors among them
2. Naturalization of roadsides, trails, the grounds of educational facilities, or Regional facilities where such projects are directly related to Regionally-supported interests.
3. Acquisition of ecologically significant natural areas within Environmentally Sensitive Policy Areas, Environmentally Sensitive Landscapes, or adjacent to Regional Forests
4. Public education and awareness initiatives on some aspect of environmental sustainability with particular relevance to Waterloo Region
5. Environmental or sustainability-based research being carried out at post-secondary institutions within the Region
6. Environmental stewardship–related research being carried out by a student at a high school or post-secondary institution or by a member of a recognised naturalist, agricultural, or environmental organisation.
7. Demonstration projects promoting waste reduction, water conservation, energy conservation, remediation of contamination

Each category has a main objective that must be achieved by the project. In addition, a qualifying project proposal must fulfill at least two of several criteria in each category in order to be considered for funding.

It was anticipated that the second round of funding applications would be announced in the summer or fall of 2010 following Provincial approval of the new Regional Official Plan (ROP) which designates the Dumfries Carolinian and Beverly Environmentally Sensitive Landscapes (ESLs). As this approval did not occur until the very end of 2010, however, the second round was considerably delayed. Application packages were sent to over 1,200 registered landowners in the two ESLs in mid-February, 2011. Packages were also sent to others who had earlier expressed an interest in applying for a project. The package was posted on the Region’s website. Over the ensuing weeks, numerous applicants contacted staff by phone, e-mail, or requested visits to the properties to discuss potential projects.

By the closing date of March 24, 2011, 28 applications had been received. Staff have reviewed the proposed projects, and recommend that the 27 listed in the attachment to this report be funded from the Environmental Stewardship Fund. Of the applications submitted, only one is not recommended for funding at this time because there is insufficient detail in the application, and staff were unable to contact the applicant prior to the submission date for this report. Staff will send a letter to the individual requesting a follow up discussion.

Total value of projects is $621,506 excluding H.S.T. but including the dollar value assigned to volunteer labour. Of this total, $165,721 is being recommended for funding from Environmental Stewardship Fund. Thus, for every dollar recommended from the Stewardship Fund, another $2.75 is to be contributed to environmental stewardship projects from other funding sources, from the applicants themselves, or in volunteer labour.

The applications fall into various categories. These include:

- Eight schoolyard greening projects with recommended funding totalling $20,016 (12.1% of total).
- Nine projects are located entirely within three of the ESLs with a total value of $272,935, and recommended funding of $100,530 or 60.9% of the recommended disbursements. More specifically, three projects fall in the Beverly ESL totalling $152,114 of which $44,089 is recommended for funding from the Environmental Stewardship Fund; four in the Dumfries Carolinian ESL with a total value of $46,730, of which $35,941 is recommended for funding, and two at the rare Charitable Research Reserve in the Blair-Bechtel-Cruickston ESL total $74,085 of which $20,500 is recommended for funding. Six of those applicants responded to the mailing to all the landowners in the new ESLs.
- Seven projects with an educational component. Apart from the schoolyard greening projects, there are two for interpretive signage ($13,000), two to help sponsor events ($3,000), two to help publish educational brochures for property owners ($3,700), and one to continue an important research project ($5,000).

Most of the projects are relatively modest in scale. They fall into the following size categories.

<table>
<thead>
<tr>
<th>Amount Requested</th>
<th>Number of Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ $1,000</td>
<td>5</td>
</tr>
<tr>
<td>$1,001 - $2,500</td>
<td>5</td>
</tr>
<tr>
<td>$2,501 - $5,000</td>
<td>10</td>
</tr>
<tr>
<td>$5,001 - $10,000</td>
<td>3</td>
</tr>
<tr>
<td>$10,001 - $20,000</td>
<td>2</td>
</tr>
<tr>
<td>$20,001 - $35,000</td>
<td>2</td>
</tr>
</tbody>
</table>

The largest application is for a $35,000 contribution to a purchase of ecologically significant land in the Beverly ESL by the GRCA.

One of the projects funded in 2010 is a technical study for the rehabilitation of the upper reaches Monastery Creek which have been experiencing severe channel erosion for many years. This project has been identified as a priority project by the Laurel Creek Headwaters Environmentally Sensitive Landscape Public Liaison Committee. The study was nearing completion by the closing date for applications. Following this, it will be necessary to meet with the three most affected landowners to discuss how to proceed with the report’s recommendations. If this entails an additional outlay from the money remaining in the Fund, a report to that effect will be brought forward at a later date.

**Area Municipal Consultation/Coordination**

As some applications affect Area Municipal interests, Regional staff have reviewed them with appropriate Area Municipal staff. A copy of this report will be sent to all Area Municipalities.

**CORPORATE STRATEGIC PLAN:**

The implementation of the Environmental Stewardship Fund will help achieve the Strategic Objective of preserving sensitive environmental features by providing tangible support to assist landowners with the stewardship of their properties.

**FINANCIAL IMPLICATIONS:**

The recommended grants totalling $165,721 will be funded from the Environmental Stewardship Fund account. Of the $181,928.10 allocated in 2010, $104,692 has been disbursed as of March 31,
2011 for completed projects. The recommended disbursements of $165,721 will be drawn from funds remaining in this account.

**OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:**

Transportations and Environmental Services staff is assisting with the production of the ESL signage mentioned in Item 24, Attachment A. Finance staff will assist with processing receipts and issuing cheques to successful applicants under the Environmental Stewardship Fund, and will be involved in the paying of invoices submitted by successful applicants upon the successful completion of their projects.

**ATTACHMENTS:**

Attachment A - Summary of Projects Recommended for Approval - April 12, 2011

**PREPARED BY:**  
Chris Gosselin, Manager of Environmental Planning  
Albert Hovingh, Principal Planner, Environmental Stewardship

**APPROVED BY:**  
Rob Horne, Commissioner, Planning, Housing and Community Services
ATTACHMENT A

Summary of Environmental Stewardship Fund Projects Recommended for Approval - April 12, 2011

1. **Ayrshire Meadows (Categories 7 and 1): $2,750**

Quiet Nature (formerly Naturally Maintained) is a locally-owned business specialising in the creation of sustainable private, institutional, industrial and commercial landscapes. The applicant is proposing to create a demonstration site on his property near Ayr using a variety of native species. This is intended to encourage other landowners to attempt similar naturalisation on their properties. He is also to use the site for research purposes using different methods for seeding and site treatment. He is also planning to encourage local post-secondary students to establish research plots on the property. The total estimated cost of the project, including significant in-kind contributions, is $10,217. It is recommended that up to $2,750 be allocated to Quiet Nature for the purchase of prairie/meadow seed mixtures and nurse crop, trees and shrubs, weed prevention disks, tree guards, and fertilisers.

2. **Branchton Land Trust Forest Enhancement (Category 1): $2,000**

The Branchton Village Land Trust has applied to hire qualified specialists to assist with the stewardship of the woodland obtained by the Land Trust some years ago. First, the Land Trust wishes to hire a qualified arborist to fell some lodged trees which constitute a hazard to visitors to the forest. Secondly, the Land Trust proposes to hire a botanist to do a comprehensive botanical survey of the property as input to an environmental management plan for the woodland. The total estimated cost of the project, including in-kind contributions, is $3,000. It is recommended that up to $2,000.00 (exclusive of taxes) be allocated to the Branchton Land Trust for these purposes. In addition, the members of the Land Trust will contribute an estimated $1,000 in volunteer time to assist with these projects and the suppression of Garlic Mustard within the woodland.

3. **Cambridge Pollinator Preserve (Category 4): $3,000**

The Ancient Mariners Canoe Club is collaborating with the City of Cambridge to create a 2.5 acre pollinator preserve in Riverbluffs Park on the Grand River. The site is on the Blair Trail/Trans Canada Trail. Quite apart from benefiting pollinator insects, the site is also intended to serve an educational function to teach youth and the public at large about the importance of pollinating insects. The project has received or applied for funding from a variety of private and N.G.O. funders in addition to substantial in-kind contributions from the City of Cambridge. The Ancient Mariners have applied to the Environmental Stewardship Fund for funding for interpretive signage to be installed on site. The total estimated cost of the project, including significant in-kind contributions, is $45,383. It is recommended that up to $3,000 be allocated to the City of Cambridge acting on behalf of the Ancient Mariners to purchase a permanent outdoor display unit for the Pollinator Preserve in Riverbluffs Park.

4. **2011 Champion Tree Hunt (Category 4): $2,000**

A local group of arborists, landscaper, and naturalists is organising a Champion Tree Hunt. The purpose is to involve the general public, various environment-oriented voluntary organisations, and agency staff in a search for the largest trees in Waterloo Region. A similar “Great Tree Hunt” took place in 1990. A tree hunt involves a wide cross-section of regional residents and promotes public appreciation and knowledge of trees. The total estimated cost of the project, including significant in-kind contributions, is $20,119, to be funded from divers sources. It is recommended that up to $2,000 be allocated to fund the production of booklets for the event.
5. **Elmira District Secondary School Greening of EDSS (Categories 2, 4): $2,200**

The goal of the project is to increase environmental awareness and foster stewardship among members of the school community by planting a garden of native, drought tolerant species in a at the front of the school. Students will be invited to do at least some of the work in order to create a sense of ownership of the garden. The total estimated cost of the project, including in-kind contributions, is estimated to be about $10,000. It is recommended that up to $2,200 be allocated to the Elmira District Secondary School for the purchase of required building supplies, native plant materials, the rental of an excavator, and miscellaneous supplies.

6. **Elmira Public Library Garden Restoration (Categories 2, 4): $700**

The purpose of this project is to restore part of the butterfly garden that was established at the Elmira Library in 1993 which has deteriorated to some extent. The project is intended to showcase an attractive, low-maintenance, chemical-free and drought-resistant landscaping option for home gardeners as well as beautify the Library grounds on Arthur Street in the heart of Elmira. The total estimated cost of the project, including significant in-kind contributions, is $5,775. It is recommended that up to $700 be allocated to the Township of Woolwich on behalf of the Township of Woolwich Environmental Enhancement Committee (TWEEC) for the purchase of materials for this project.

7. **Emerald Ash Borer Woodlot Brochure (Categories 4, 7): $3,000**

Last year, the Canadian Food Inspection Agency (CFIA) announced the presence of Emerald Ash Borer in Waterloo Region. More recently, it has been identified in most of Southern Ontario, where it poses a long-term and widespread threat to woodlands and street trees alike. As most landowners do not yet understand the potential effects of Emerald Ash Borer on their ash trees, they need practical assistance to assess the situation of their woodlands and make informed choices about how to manage their ash trees. It is also proposed to host a landowner workshop on the subject. The purpose of this project is to develop a brochure which will assist woodlot owners to make informed decisions regarding management of ash trees in woodlots in light of the presence of Emerald Ash Borer. The total estimated cost of the project, including contributions from other relevant agencies, is $11,172. It is recommended that up to $3,000 be allocated to Williams & Associates Forestry Consulting for the production of the brochure.

8. **Grand River Conservation Authority Beverly Swamp Acquisition (Category 3): $35,000**

The Grand River Conservation Authority (GRCA) has the opportunity to purchase two parcels of land totalling 40 hectares of Provincially Significant Wetland located along the North Dumfries Township-City of Hamilton boundary. The properties have high ecological significance in that they constitute part of the Beverly Swamp Environmentally Sensitive Policy Area [ESPA 69], the newly designated Beverly Environmentally Sensitive Landscape (ESL), and the Natural Heritage System of the Ontario Greenbelt. They also abut some smaller parcels of similar habitat owned by the Authority in the City of Hamilton. Acquisition of these parcels will bring them under the informed stewardship of GRCA forestry staff. The total cost of the land is $150,000. Based on an ad hoc decision made in the previous round of Environmental Stewardship Fund allocations to limit grants for land purchases to about 10% of available funds, it is recommended that up to $35,000 be allocated to the GRCA for the purchase of these lands.

9. **Grand River Conservation Authority Dickson Wilderness Area Prairie Grass Prescribed Burn (Categories 1, 4): $5,681**

The GRCA is proposing to carry out a prescribed burn of the tallgrass prairie habitat in the northern part of the F.W.R. Dickson Wilderness Area. This forms part of the Dickson Wilderness Area [ESPA
April 12, 2011

47 and lies within the new Dumfries Carolinian ESL. Since the first prescribed burn carried out in the area in the 1990s, the rare tallgrass prairie habitat has improved significantly in quality and vigour because it is dependent upon fire to suppress competing woody vegetation including invasive non-native Common Buckthorn. Apart from being good environmental management of the tallgrass prairie habitat, the prescribed burn will educate the general public about how such systems are managed. This is especially important in that some local landowners are considering restoring portions of their properties to tallgrass prairie. The total estimated cost of the project, including in-kind contributions, is $10,719. It is recommended that up to $5,681 be allocated to the GRCA for the prescribed burn operation.

10. Heritage River Birch Clump Planting (Categories 2): $1,174

The applicant has recently had to remove cedar trees along the southern boundary of his property on Main Street (Highway 97) on the east side of Cambridge and on the western edge of the Beverly ESL. The cedars had been badly damaged by salt spray from the road, and had become unhealthy and unsightly. He is now proposing to plant the edge of his property with birch trees, which, in his experience, have withstood salt spray in one part of the area. The trees will help to naturalise this segment of Main Street and provide a screen of trees between the road and his residence. The total estimated cost of the project is $1,904. It is recommended that up to $1,174 be allocated to Geoff Whitehead for the purchase of birch trees, topsoil, mulch, fertiliser, and stakes.

11. Highland Public School Yard Greening Project (Category 2): $3,000

A group of parents and teachers is planning to enhance the schoolyard by installing armourstone blocks to check an eroding slope and serve as a seating area. In addition, it is proposed to plant three native Hackberry trees and other low-maintenance, drought-tolerant locally indigenous vegetation to enhance the quality of the schoolyard. Teachers, parents and children will work together to prepare, plant and maintain the area for the benefit of students and the community. The total estimated cost of the project, including significant in-kind contributions, is $4,080. It is recommended, pursuant to the guidelines for schoolyard greening projects, that up to $3,000 be allocated to Highland Public School, up to $1,200 for the purchase of three hackberry trees and up to $1,800 for the purchase of armourstone blocks.

12. Kirby’s Gore Road Lot Environmental Project (Category 1): $940

The property owners have recently purchased a newly-created lot on Gore Road in the extreme north-east corner of the Beverly ESL. The lot is former pastureland, and is at present almost devoid of natural vegetation. The owner wishes to plant a treed buffer or small corridor consisting of native trees along the eastern boundary of the lot in proximity to a woodland and Core Environmental Feature on the adjoining property. The total estimated cost of the project, including in-kind contributions, is $1,437. It is recommended that up to $940 be allocated to Kirby Singh for the purchase and delivery of the trees listed on his application form as well as mulch.

13. Knight Family Tallgrass Prairie and Savanna Restoration (Categories 1, 7): $9,960

The Knight family are proposing to restore a 1.15 hectare corner of their property in the Dumfries Carolinian ESL to tallgrass prairie-savanna habitat. The area is a steep-sided kettle feature surrounding a groundwater-fed pond characteristic of the ESL. It was formerly pastured, and is now a mixture of non-native pasture grasses and weeds. The soils are sandy and droughty and marginal for agricultural production, but eminently suited to drought-tolerant prairie grasses. It is also located a short distance to the west of the tallgrass prairie remnant in the Dickson Wilderness Area. The Knights propose to retain a local landscaping firm with expertise in this field to perform much of the
work in order to increase the chances for a successful operation. Because the site is located right on the Brant-Waterloo Road, it will be quite visible, and the Knights are considering the possibility of explanatory signage in order to inform passersby of the nature of the project. The total estimated cost of the project, including in-kind contributions, is $13,828. It is recommended that up to $9,960 be allocated to Ron and Laura Knight for carrying out this project.

14. Mother Teresa Catholic School: Green Scene, Growing Together in Spirit. (Categories 2, 4): $2,946

Students and teachers at Mother Teresa Catholic School in Cambridge have been working together to imagine a school yard that makes use of vegetation to provide shaded gathering areas. These areas will be used for quiet as well as physical activities. Mother Teresa School is located adjacent to a rare natural oak savanna woodland associated with the Portuguese Swamp ESPA, and the intent is to plant species that are appropriate for this woodland type. The total estimated cost of the project, including significant in-kind contributions, is $3,329. It is recommended that up to $2,946 be allocated to Mother Teresa Catholic School for the purchase of trees, armourstone, and soil amendments.

15. Northlake Woods Public School – Plan-it Green (Category 2): $2,450

The objective of this project is to maintain and rejuvenate the woodlot on the school property. The woodlot continues from the school grounds into a municipal park. The woodlot is being used as an education for the elementary grades, but requires some improvement and control of non-native invasive species. It is proposed to replace Manitoba Maples with six native trees and also rejuvenate the pollinator garden. Northlake applied for funding in 2010 and was allocated $1,700. In 2010, staff prepared guidelines for funding schoolyard greening projects at Council’s request. The requested amount of $2,450 exceeds the maximum of $2,000 for a second phase schoolyard application as specified in the guidelines, but as the initial request for $1,700 falls well short of the maximum of $3,000 for an initial application, the combined total of $4,150 is less than the possible maximum amount of $5,000 in two sequential applications. It is recommended, therefore, that up to $2,450 be allocated to Northlake Public School for the purchase and planting of three maple trees, three armourstone rocks and mulch.

16. rare Environmental Management Plan (Category 1): $16,000

Located at the heart of the Blair-Bechtel-Cruickston ESL, the rare Charitable Research Reserve is now in its tenth year, and is planning to prepare a new Environmental Management Plan to guide the organisation’s operations in the coming years. The plan will identify and map the various habitats and prescribe conservation actions to maintain or restore these areas, including the 93 acre parcel purchased in late 2010 with assistance from the Environmental Stewardship Fund. One of the initial components of the Environmental Management Plan is detailed mapping and species inventory using the widely-accepted Ecological Land Classification (ELC) system. rare is applying to the Environmental Stewardship Fund for assistance with this aspect of the larger project. The total estimated cost of the project, including in-kind contributions, is $63,843. It is recommended that up to $16,000 be allocated to rare for the purchase of expert ELC consulting services.

17. rare Native Tree and Shrub Interpretive Loop (Categories 1, 2, 4, 7): $4,500

The rare Charitable Research Reserve is proposing to develop a loop trail on the Springbank area of the reserve for the purpose of educating the many visitors to the site on the ecological, cultural, and aesthetic values of about 60 species of indigenous plant species. It is proposed to include every tree and shrub group native to the Region of Waterloo in a permanent exhibition unique to the area. Signage and literature will inform visitors of the properties and significance of the respective plants.
The total estimated cost of the project, including significant in-kind contributions, is $12,725. It is recommended that up to $4,500 be allocated to rare for the purchase of planting stock, tree guards, signage, and the production of literature.

18. **Urban Turtle Conservation and Stewardship: City of Kitchener (Categories 6, 4): $5,000**

In 2010, the City of Kitchener initiated a study of the status of turtle populations in the Huron Natural Area and the Laurentian Wetland. Turtles are highly vulnerable to human impacts; at present seven of the eight species native to Ontario are considered to be at risk to some degree. The 2010 study was quite informative, and indicated some of the problems faced by turtles with respect to habitat destruction, juvenile survival, poaching, migration, and breeding. It is now proposed to continue the study at the existing sites and extend it to Lakeside Park. In addition to informing the City’s parks staff as to how best to care for turtle populations in urban parks, it has also involved significant numbers of citizen volunteers and students who monitor the sites and protect turtle nesting habitat. The information collected will identify conservation priorities and inform a management strategy to ensure the viability of the City’s turtle populations. Such a study is also expected to assist other municipalities in similar endeavours. The total estimated cost of the project, including contributions from at least five other funding organisations and significant in-kind contributions, is $115,155. It is recommended that up to $5,000 be allocated to the City of Kitchener to assist with staff-related costs for this project.

19. **St. Dominic Savio Catholic School Greening Project – Operation Dragon’s Den (Category 4): $3,000**

The school community is proposing to rejuvenate a rather barren kindergarten outdoor play area by planting trees, adding some seating, and a butterfly garden in addition to other improvements intended to green the school yard and provide staff and students with opportunities for education, conservation and stewardship. The project includes bird boxes, a no-mow area, and a butterfly garden, and will involve the entire school community in the on-going maintenance and stewardship activities. The total estimated cost of the project, including in-kind contributions, is $12,188. It is recommended that up to $3,000 be allocated to St. Dominic Savio Catholic School for the purchase of three trees, two armourstone rocks, two bench planters, as well as mulch and topsoil and plants for the butterfly garden.

20. **St. Luke School Greening Project, (Categories 2, 4): $3,000**

This project is intended to begin a transformation of a playground described as having “minimal shade and virtually no seating for our students.” to one with a grove of trees with mulch cover on the ground and an assortment of rocks for seating. In addition some rocks will be placed and trees will be planted along a community pathway that enters the school property. The areas will provide students and teachers with opportunities for outdoor instruction, creative play, observation and conversation. The total estimated cost of the project, including significant in-kind contributions, is $15,504. It is recommended that up to $3,000 be allocated to St. Luke School for the purchase of five trees, stakes, four armourstone rocks, and soil amendments.

21. **St. Margaret Catholic School – Operation Recreation (Categories 1, 2): $900**

Operation Recreation is the second phase of St. Margaret’s schoolyard greening. This phase will see the development of a pathway through the existing woodlot on the property and the installation of an outdoor classroom and a pathway from the school. Low-maintenance, drought-tolerant native species will be used. In 2010, the school received an allocation of $4,032 from the Environmental Stewardship Fund which is well over the maximum amount of $3,000 later established in the funding guideline for a first phase application. The current request for $2,000
for the second phase is consistent with the second phase maximum, but would put the total allocations to St. Margaret Catholic School at over $6,000. In order to keep the aggregate allocations to the school consistent with the approved schoolyard funding guideline, it is recommended that up to $900 be allocated to St. Margaret Catholic School for the purchase of mulch for the construction of the forest path.

22. **Shade Policy Forum (Category 4): $1,000**

Shade has emerged in recent years as an area where public health and broader environmental issues converge. On November 5, 2010, the Region’s Public Health Department cancer prevention group hosted an initial conversation involving school boards, Area Municipal parks and engineering staff, and citizen volunteers to explore the potential to develop policies and practices in a variety of local government organisations to promote shade in public places. The next step is a shade forum to be held in June which is proposed to feature staff from other jurisdictions who have successfully become to implement shade promotion policies. Apart from the public health benefits, shade policies resulting in enhancing the urban forest can also be expect to help counter the urban heat island effect and improve air quality. The total estimated cost of the project, including in-kind contributions, is $2,550. It is recommended that $1,000 be allocated to the Tobacco and Cancer Prevention section of the Regional Public Health Department to help defray the costs of this forum.

23. **Van der Heyden Prairie Savanna Restoration (Category 1): $18,300**

The Van der Heyden property is located in the southwestern corner of the Dumfries Carolinian ESL. The front part of the property on Wrigley Road is rolling abandoned pastureland punctuated by two shallow kettle pond features characteristic of the North Dumfries landscape. Mr. van der Heyden hopes to restore portions of this area to natural habitat reflective of the pre-settlement tallgrass prairie savanna vegetation. The property is a short distance from the Dickson Wilderness Area prairie and the Knight family property referred to in item 13 above, and so this treatment is ecologically appropriate. The present proposal is to convert approximately 1.5 hectare of the abandoned pasture to native prairie/ meadow/savanna habitat. In addition, it is also proposed to restore portions of the shoreline of the two ponds to a representative mix of native wetland shrubs, trees, and herbaceous vegetation. The pond edges are thought to have been degraded by being trampled by cattle under previous landowners. Pond edge habitat will complement the drier upland prairie and savanna habitat and in time attract a diversity of native wildlife to the site. Ornithologists have noted an alarming decline in grassland bird species in recent decades. This is believed to be due to the reforestation of marginal farmland and to the conversion of pastureland to intensive cropland. The restoration of some areas of marginal pasture to tallgrass prairie and savanna in association with natural shallow ponds and wetlands can be expected to benefit these species of birds as well as frogs and turtles. Mr. van der Heyden proposes to retain a local landscaping firm with expertise in this field to perform much of the work in order to increase the chances for a successful operation. It can reasonably be expected that, once established, the native vegetation will begin to spread to adjoining areas on the property. The total estimated cost of the project including in-kind contributions is $24,758. It is recommended that up to $ 18,300 be allocated to Peter van der Heyden over the 2011-12 growing seasons, for carrying out this project.

24. **Waterloo Stewardship Network – Natural Corridors Program (Categories 1, 2, 6): $24,000**

The Natural Corridors program will build on the success of the initial roadside planting project carried out in 2010. The goal of this project is to create natural corridors on the landscape using appropriate locally indigenous plant materials. Plantings will include roadside plantings, living snow fences, wind breaks, and riparian plantings on private, non-farm rural lands. The total estimated cost of the project, including in-kind contributions, is $48,265. It is recommended that
up to $24,000 be allocated to the Waterloo Stewardship Network for the purchase of plant material and plant protection products as well as for producing printed materials.

25. **Wellesley & District Public School – Reduce, Reuse, Replant (Categories 2, 4): $2,520**

This project will see the introduction of a greater variety of trees on the Wellesley & District Public School property with the intention of increasing the shade on the grounds and creating seating areas for students involved in passive play pursuits. This project involves the participation of staff, students and members of the larger community. The total estimated cost of the project, including significant in-kind contributions, is $12,333. It is recommended that up to $2,520 be allocated to the Wellesley & District Public School for the purchase of native species of trees, tree guards, armourstone, and soil amendments.

26. **Ontario Invasive Plant Council “Grow Me Instead” Brochure (Category 4): $700**

The Ontario Invasive Plant Council (OIPC) was established in 2008 to coordinate efforts by various levels of government, voluntary sector organisations, and the private sector to address the growing problem of invasive non-indigenous plant species in woodlands, wetlands, waterways, and parklands. Regional weed inspection and environmental planning staff have been collaborating with the OIPC. Recognising that a number of invasive plant species have been intentionally planted by home gardeners and landscapers, the OIPC recently published an illustrated brochure titled “Grow Me Instead: Beautiful Non-Invasive Plants for your Garden - A Guide for Southern Ontario.” Due to popular demand, the brochure must be reprinted at an estimated cost of $7,000. As at least some of the brochures will benefit Regional residents, it is recommended that up to $700 be allocated to the Ontario Invasive Plant Council to help defray printing costs.

27. **Waterloo Region Environmentally Sensitive Landscape Signage (Category 4): $10,000**

The previous round of grants allocated $5,000 to the production of the first ESL roadside signs, six of which are now ready to be installed ON Regional and Township roads around the perimeter of the Laurel Creek Headwaters ESL. By arrangement with Transportation and Environmental Services staff, the cost of manufacturing and installing the signs is to be borne by the Planning, Housing and Community Services Department. It is recommended that up to $10,000 be allocated to the production and installation of the first signs in the three other ESLs.
REPORT

TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 12, 2011

FILE CODE: F-25-20/HAAS

SUBJECT: BROWNFIELDS FINANCIAL INCENTIVE PROGRAM: TAX INCREMENT GRANT PROGRAM APPLICATION – 130 AND 170 WATER STREET NORTH, CITY OF CAMBRIDGE (WATERSCAPE)

RECOMMENDATION:

THAT the Regional Municipality of Waterloo approve a Tax Increment Grant for the properties known as 130 and 170 Water Street North in the City of Cambridge in an amount not to exceed $4,372,514 under the Region’s Brownfield Financial Incentive Program to be financed from the remaining funds from the Brownfields Financial Incentive Pilot Program to a maximum of $930,941 and from a source to be identified as part of the Reserve and Reserve Fund Report planned for Administration and Finance Committee in May 2011 as described in Report P-11-038/F-11-018/CR-RS-11-023, dated April 12, 2011.

AND THAT the Regional Municipality of Waterloo authorize the Region’s Commissioner of Planning, Housing and Community Services and Chief Financial Officer to execute a multi-party Tax Increment Grant Agreement with the registered owners of 130 Water Street North, namely Cambridge Mill Development Inc, and 170 Water Street North, namely Haastown Holdings (Cambridge) Inc. and the Corporation of the City of Cambridge, as described in Report P-11-038/F-11-018/CR-RS-11-023, dated April 12, 2011 with the form and content of such agreement to be satisfactory to both the Regional and City Solicitors.

SUMMARY:

In October 2006, Regional Council approved the framework for a Regional Brownfields Financial Incentive Pilot Program (Pilot Program). The goals of this Pilot Program are to encourage the remediation and redevelopment of brownfield sites, to promote reurbanization, and to reduce the outward movement of the urban area in support of the Regional Growth Management Strategy (RGMS) and the Province’s Places to Grow Growth Plan.

In June 2007, the joint Tax Increment Grant (TIG) Program, as described in Report F-07-046/P-07-079, was approved by the Region. A TIG acts as a financial incentive for brownfield redevelopment and is based on the property tax increase resulting from remediation and redevelopment of a contaminated site. Grant payments are determined by calculating the difference in municipal (Region and City) taxes paid before remediation and redevelopment and the taxes generated after the redevelopment is complete (the tax increment). Payments are made in annual installments until all eligible remediation costs (minus other brownfield-related assistance granted) are recouped subject to limits set out in an agreement between the parties. TIGs are only used to offset
remediation costs and are not intended to cover redevelopment costs.
In June 2008, this joint program was implemented through amendments to the local Community Improvement Plans in the City of Kitchener (on a city-wide basis) and in the City of Cambridge (core areas only). The joint TIG program was later expanded, in 2010, to include the whole city of Cambridge.

On March 11, 2009 Regional Council approved a joint TIG with the City of Kitchener for 36 Francis Street South (The Lang Tannery) for a total grant of $891,136. The Regional portion of this grant is capped at $537,410 (see Report F-09-016/P-09-018). All TIG agreements are implemented through a Multi-Party legal agreement between the Region, the respective Area Municipality and the applicant.

The TIG application for 130 and 170 Water Street North, received on July 29, 2009, is the second application under this program. The application is for a maximum total grant of $7,310,557, of which approximately 60% ($4,372,514) would be provided by the Region and the remaining 40% ($2,938,041) would be provided by the City of Cambridge. The TIG proportions are determined by each municipality’s share of the municipal taxes levied on the property. The City of Cambridge’s proportionate contribution to the tax increment grant was approved by Cambridge Council on March 28th, 2011.

This report describes the TIG Program requirements, the application received and recommends approval of the application based on the proposed phased TIG framework. The principles of this framework were approved on March 28, 2011 by the City of Cambridge (see Report CAO 2011-R11) and are also supported by the applicant. The TIG framework includes a flexible, three-phased approach that allows for the remediation and redevelopment of both parcels over a maximum timeframe of fifteen (15) years from the date of the first TIG payment. The TIGs will not be paid until the remediation and redevelopment associated with each phase on the north parcel is complete, and in the case of the south parcel, remediation of the whole site is fully complete. There is also a one-year waiting period after each respective phase is reassessed by the Municipal Property Assessment Corporation (MPAC). The first TIG payment related to the first building on the north parcel, “Waterscape 1” is anticipated to occur no earlier than 2012. A portion of non-hazardous material may be received at the Region’s landfill in Waterloo in accordance with pre-established criteria set forth by both the Ministry of the Environment and the Region and at a tipping fee consistent with the Region’s Fees and Charges by-law in order to reduce overall costs. The details of the joint TIG will be outlined in a Multi-Party legal agreement between the Region, the City of Cambridge and the applicants.

The Pilot Program was allocated an overall budget of $2.5 million. Total expenditures and commitments to date are $845,580 while pending expenditures for ESA grants and assistance with Township Community Improvement Plans total $390,000. The amount spent, committed and pending is $1,235,580 leaving a balance of $1,264,420. It is recommended that the balance of the pilot program funding be used to fund the Region’s share of the costs for the proposed TIG for 170 Water Street North (the north parcel), Cambridge with a potential maximum cost of $930,941. A source of funding for the proposed TIG at 130 Water Street North (the south parcel) to the potential maximum of $3,441,573 will be identified as part of the Reserve and Reserve Fund Report planned for Administration and Finance Committee in May. Further, as part of the review of the Pilot Program, Regional Staff are reviewing funding options for the TIG program and will report back to Regional Council with recommendations for an ongoing funding source. As approved by Regional Council in the fall 2009 (Report P-09-058), funding sources for any future TIG applications will continue to be considered on a case-by-case basis until the long-term funding strategy is in place.
REPORT:

In October 2006, Regional Council approved the framework for a Regional Brownfields Financial Incentive Pilot Program (Pilot Program). The goals of this Pilot Program are to encourage the remediation and redevelopment of brownfield sites, to promote reurbanization, and to reduce the outward movement of the urban area in support of the Regional Growth Management Strategy (RGMS) and the Province’s Places to Grow Growth Plan. This Pilot Program contains four components:

1. A grant program which funds up to 50 percent of eligible costs associated with the completion of a Phase II Environmental Site Assessment (ESA), to a maximum of $40,000;
2. Changes to the Regional Development Charges By-law to provide for development charge exemptions up to the total eligible remediation costs associated with the clean up of contaminated sites outside of core areas;
3. Development of a joint Tax Increment Grant (TIG) Program to further help off-set remediation costs of brownfield sites; and
4. Funding for Area Municipalities to assist in amending or developing Community Improvement Plans (CIPs) to provide for the implementation of the joint TIG Program.

Tax Increment Grant (TIG) Program Implementation

In June 2007, the joint TIG Program was approved by the Region as outlined in Report F-07-046/P-07-079.

In order to be eligible for the TIG Program, the following criteria apply:

- The site must be located within the designated Area Municipal Community Improvement Plan (CIP) Project Area where the CIP allows for implementation of the Regional Brownfields Financial Incentive Program;
- The applicant must be the registered owner of the site or an assignee of the owner;
- The applicant cannot be responsible for causing the on-site contamination that requires remediation;
- The remediation and redevelopment undertaken must result in a minimum increased property assessment value of $100,000;
- The Environmental Site Assessments must be completed by a “Qualified Person” (as per Ontario Regulation 153/04);
- Redevelopment plans must meet all approved policy and should comply, where feasible and appropriate, with applicable design guidelines;
- The site must not be in a position of tax arrears or have any outstanding municipal financial obligations;
- Application for a TIG must be made prior to issuance of building permit(s) for the redevelopment. (Exceptions will be considered in cases where a building permit was issued after March 1, 2008 but before the corresponding Area Municipal Community Improvement Plan authorizing the joint TIG Program was established).

As noted above and previously discussed in Report F-07-046/P-07-079, Area Municipal Community Improvement Plans allowing Regional participation in the CIP for purposes of a joint TIG Program must be in place for the Regional TIG Program to apply. To date, only the cities of Kitchener and Cambridge have such plans in place.

In November 2009, Council approved the TIG Program funding structure whereby the TIG application approval and funding source are determined on a case-by-case basis by Regional
council as described in Report P-09-058.

Application Details

On July 29, 2009, the Region of Waterloo, through the City of Cambridge, received the second application for the joint City/Region TIG Program for Brownfield Remediation and Redevelopment. The applicants, Haastown Holdings (Cambridge) and Cambridge Mill Development Inc, own two adjacent parcels located at 130 & 170 Water Street North in the City of Cambridge (Downtown Galt). The two parcels, originally acquired by Haastown Holdings in January 2006, are also known as the Waterscape project. There are three (3) potential development phases for the two parcels.

170 Water Street North, Cambridge

170 Water Street North (north parcel) is approximately 0.87 hectares (2.1 acres) in size and is bounded by Water Street North and the Grand River. Since the early 1900s, the three-storey multi-tenant building on the northern part of the site housed several different uses including: a new and used machinery and supplies showroom; automotive supply parts warehouse; residential, and a lawyer's office. This site is currently being used as a sales centre for the Waterscape project. As part of the Phase I & II Environmental Assessment work done on the site, the following contaminants were identified: heavy metals, poly aromatic hydrocarbons, and petroleum hydrocarbons.

It is anticipated that redevelopment of the north parcel owned by Haastown Holdings will occur in two phases. The first phase or “Waterscape 1”, is currently underway and includes the ongoing risk management of the north parcel and the construction of a 14 story residential condominium with 113 units. Acknowledgement of Filing of Record of Site Condition by the Ministry of Environment was received on October 21, 2008. The Building Permit was issued for the north parcel in December 2008 and Site Plan Approval was granted on June 19, 2009. Construction is substantially complete with occupancy ongoing since December 2010.

The second phase of redevelopment on the north parcel or “Waterscape 2” includes another multi-unit residential condominium. Construction is anticipated to begin following the completion of Waterscape 1, with the exact timing depending on market conditions. Further risk mitigation and remediation for this phase will also be required.

130 Water Street North, Cambridge

130 Water Street North (south parcel) is approximately 0.63 hectares (1.5 acres) in size and is bounded by Water Street North, Park Hill Rd West and the Grand River. The Galt Gas Company operated a coal gasification plant on the southern most portion of the site from 1886 to 1910. Other uses on the site included a textile mill (Galt Robe Co. and Stauffer Dobbie Limited), an auto garage, and a lumberyard. The site remained relatively unchanged from 1941 to 1985 when it was demolished in anticipation of the redevelopment of the property into condominiums in 1987. The condominium development did not occur due to the discovery of soil impacts in the form of coal tar residual under and to the west of the former coal gasification plant. The Phase I and II Environmental Assessments on this site identified the following contaminants; petroleum hydrocarbons, xylenes, polycyclic aromatic hydrocarbons, volatile organic hydrocarbons and heavy

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1 Risk Management Measures refer to both the administrative (Certificate of Property Use, Health and Safety Requirements and Inspection and Maintenance Program) and physical controls (construction of a cap, use of clean fill material and specialized liners to contain the soil ) to prevent adverse impacts upon the identified receptors from the contaminants of concern.
The third phase of the project includes the risk assessment, remediation and redevelopment of the south parcel now owned by Cambridge Mill Developments. The preliminary plan for the south parcel is that it be redeveloped into a hotel and conference centre to complement the existing mill structure adjacent to the site (and also owned by the same party).

A summary of the estimated remediation costs for each phase is as follows while more detailed information is shown in Attachment 1:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Remediation Estimates</th>
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<tbody>
<tr>
<td>Waterscape 1</td>
<td>$700,559</td>
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<tr>
<td>Waterscape 2</td>
<td>$921,000</td>
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<tr>
<td>Total</td>
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</tr>
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</table>

Following discussions with the Region’s Waste Management staff, the applicants and their consultants, it was determined that the potential for significant cost savings could be achieved if the Region were to accept impacted but non-hazardous soils from both the north and south parcels for disposal at the Regional landfill facility. To this effect, the applicant’s consultants provided revised estimates that suggested the overall total eligible remediation costs on the south parcel could be reduced by approximately $2.2 million to a total of $3,022,760. The process as to how such materials will be accepted at the Regional landfill is described below.

**Specific Joint TIG Program Application Considerations**

Given the substantial contamination issues of the south parcel, the applicants have indicated that it is not financially feasible to complete remediation of the south parcel before the first phase of the north parcel (Waterscape 1) is complete. They have requested that their application for the TIG Program be considered in light of the phased nature of their remediation and development approach. In consultation with City of Cambridge staff, three key areas have been identified where an alternative approach may be warranted, while still meeting the intent and objectives of the joint TIG Program.

1. **Eligibility Criteria – Application and Timing**

The TIG application for 130 & 170 Water St. North was received on July 29, 2009, following the issuance of a building permit in December 2008. The administrative requirement of both the Regional and City remediation programs require an application to be submitted prior to the issuance of a building permit.

While the applicant does not strictly meet the above criteria based on the date of its application, staff at both the Region and the City were aware of the applicant’s intent to apply for the TIG Program as soon as they were in a position to do so and discussions with the developers of the affected properties have been ongoing since early 2008. Further, the applicant was required to obtain a building permit by the end of 2008 as a condition of the City of Cambridge relative to property tax issues for the site.

Given the need to recognize that development timelines do not always coincide with the administrative requirements of such a program, Regional staff recommends that the TIG application not be deemed ineligible on the basis of this requirement.
2. **Eligible Remediation Costs**

The TIG framework approved by Regional Council on a pilot basis lists a series of eligible remediation costs including “environmental remediation work identified in a remediation work plan, excluding work completed prior to 12 months of filing of an application.” As well, the framework provides that “the costs of any work undertaken more than 12 months prior to an application are generally ineligible for the grant.” As such, the applicant has voiced concern that this condition renders a substantial portion of the remediation work-to-date ineligible for inclusion since it was completed prior to the July 2008 cut off date (approximately $155,000). Costs include those related to the Phase I & II Environmental Site Assessment, other environmental investigation work, as well as costs related to the risk assessment for the site undertaken after ownership for the site was assumed by the applicant in 2006.

Given the nature and complexity of the contamination on the parcels, the lengthy development timeframe, the ongoing consultation with the applicant and the fact that these costs were incurred in anticipation of the implementation of the Region’s Pilot Program (approved in October 2006), staff recommend that the remediation costs incurred on the site between 2006 and 2008 also be considered eligible for inclusion in the TIG.

3. **TIG Payment Structure and Schedule**

The Proposed TIG Program for Brownfield Redevelopment Report approved by Regional Council June 26, 2007 (see report F-07-046/P-07-079), notes:

“For sites of exceptional size or complexity, or for those that involve very lengthy remediation, the terms of a TIG could, at the discretion of Regional Council, be set on a case by case basis.”

This stipulation was also reflected in the Community Improvement Plan approved for the Joint TIG Program by the City of Cambridge under “Program Description” which states that:

“The terms of the TIG are at the discretion of City of Cambridge and/or Regional Council. For sites deemed to be of exception size or complexity, involve phased development, or for those that will involve very lengthy remediation, the TIG payments and schedule may be set on a case by case basis. Council also has the right to include a “Sunset Clause” on the TIG payment schedule.”

While the TIG Program was designed to facilitate the remediation and redevelopment of a site in a consequent manner, it was recognized that some projects would require a more flexible approach in order to meet the same overall objectives. Based on the information provided by the applicant, staff is of the opinion that the Waterscape project warrants such a case-by-case approach.

The applicant has requested the following:

- That 170 Water Street North and 130 Water Street North be considered one “site” for the purposes of the TIG application;
- That the applicant be allowed to remediate and redevelop the north parcel in advance of completing remediation and redevelopment of the south parcel;
- That the TIG payments for the remediation of both the north and south parcels be based on the increased assessment value of any development that occurs on the north parcel and south parcel, depending on the timing of those developments;
- That the TIG payments be “phased” over time allowing a gap between the redevelopment of
the north parcel and completion of the remediation and redevelopment of the south parcel;
- That the overall timeframe from the first TIG payment to the last TIG payment be extended to allow for an uncertain remediation schedule (though a maximum of 10 total TIG payments for each the north and south parcels would still be in effect);
- That the applicant have the ability to defer payments if deemed appropriate within the context of the overall framework; and
- That the applicant be able to assign their interest in the agreement subject to the approval of the Councils of each of the City and the Region and any potential assignees willingness to fulfill all of the requirements of the multi-party legal agreement.

To this end Regional staff, in consultation with the City of Cambridge and the applicants, considered a number of approaches to develop an appropriate TIG framework. On March 28, 2011 Cambridge Council approved/endorsed a recommendation to treat the two parcels as one site with a three-phased TIG payment schedule based on the remediation and redevelopment timelines.

As part of this approach, the north parcel will be remediated and redeveloped and the TIG associated with this parcel will be paid out in phases upon completion, occupancy and Municipal Property Assessment Corporation (MPAC) assessment of any buildings. The first two phases of the TIG would cover costs associated with the remediation of the north parcel (Waterscape 1 and 2) and some of the limited environmental assessment costs for the whole site.

The third phase of the TIG will depend upon the timing of remediation and redevelopment of the south parcel. Once key milestones are achieved, the TIGs payable will be based on the increases in tax assessment on both the north and south parcels.

Payments related to the remediation costs of the south parcel but associated with the tax assessment increase of the north parcel (Waterscape 1) would begin as soon as the Record of Site Condition for the south parcel was acknowledged by the Ministry of the Environment (given the condition of a one-year waiting period has already been satisfied as part of the first phase of the TIG). Payments associated with the redevelopment and tax assessment increase of Waterscape 2 (north parcel) and the south parcel would begin one year following the MPAC reassessment of those redevelopments as per the specifications of the joint TIG Program.

While this approach provides for more flexibility, it also provides a reasonable framework and incentive to encourage the developer to proceed with the remediation and redevelopment of the south parcel as soon as possible. Furthermore, the sooner the north and south parcels are fully remediated and redeveloped, the sooner the expected environmental, economic and social benefits will be realized by the community. These benefits include:

- The redevelopment of an extremely challenging brownfield site that has been vacant for several decades and that has failed to redevelop in the absence of such a TIG program;
- The clean-up and risk mitigation of a site that has posed an environmental threat to the Region’s groundwater supplies (including the Middleton Well located downstream of the site);
- Assistance in the rejuvenation of the downtown Galt Core, providing for the possibility of approximately 230 new residential units and a new hotel/conference centre and providing possible spin-off effects;
- The increase in municipal taxes generated on the site including an estimated $338,220 per year from Waterscape 1, $345,660 per year from Waterscape 2 and $892,583 per year from the South parcel, if redeveloped as proposed.
**Recommended Approach**

Upon careful consideration of the Waterscape TIG application, the complexity of the remediation and the long term benefits of the redevelopment project, Regional staff recommend that the approach outlined above and endorsed by City of Cambridge be approved by Regional Council as an appropriate framework to determine the case-by-case TIG structure and payment schedule.

Provision of the multi-party legal agreement would include;

- A flexible timeframe allowing for a period of discontinuity between the TIG payments related to the remediation costs for the north parcel and any subsequent TIG payments related to the remediation costs of the south parcel. Under no circumstances would the total TIG exceed the monetary limits set in the agreement and payments will be limited to 10 per parcel (north and south);
- The timeframe from the first TIG payment to the last TIG payment, regardless of whether for the north or south parcels, would be no longer than 15 years;
- That the development of Waterscape 2 be required to be commenced on or before January 1, 2016, as evidenced by the issuance of a building permit, in order to be considered for inclusion in the overall TIG framework;
- That the applicants be required to provide status updates regarding the project upon request by the City or the Region;
- That the applicants must obtain the approval of both the Region of Waterloo and the City of Cambridge Councils if they seek to assign payments to a third party;
- That the applicants provide an updated remedial work plan and revised estimates for the south parcel as they become available;
- That the City and Region obtain the right to have the remedial work plan for the south parcel submitted for peer review;
- That the developers collaborate with the Region to determine whether suitable non-hazardous materials may be disposed of at the Regional landfill; and
- That the applicants work with the Region and City to look for opportunities to reduce and manage costs appropriately.

In determining 15 years as the appropriate timeframe, Regional staff considered several factors. First, the preliminary remedial work plan submitted indicates that remediation of the south parcel could take several years. While the applicant had originally requested a timeframe of more than 20 years, it was felt that there needed to be some incentive for the applicant to complete the remediation as soon as reasonably possible.

It should also be noted that both Waterscape 1 and 2 received Site Plan Approval by the City of Cambridge on June 19, 2009. While Waterscape 1 is currently underway, the applicant has no obligation to obtain a Building Permit for Waterscape 2 until on or before January 1, 2016. The development proposed on the south parcel is still conceptual in nature with no site plan approvals in place.

**TIG Calculations and Payment Schedule**

Given the phased approach recommended above, TIG estimates were calculated for each phase of the remediation and redevelopment. Details of the TIG calculation and the Regional and City portions are shown in Attachment 2.

TIG Calculation Steps:
1) The first step included the preparation of the anticipated assessment increment(s). These are based on the pre-remediation MPAC assessment values and the estimated post-remediation and redevelopment assessment values for each phase of development as provided by the applicant.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Assm’t Value “Pre”</th>
<th>Assm’t Value “Post”*</th>
<th>Assm’t Increment*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterscape 1</td>
<td>$331,173</td>
<td>$30,000,000</td>
<td>$29,668,827</td>
</tr>
<tr>
<td>Waterscape 2</td>
<td>$N/A</td>
<td>$30,000,000</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>South Parcel</td>
<td>$272,827</td>
<td>$40,000,000</td>
<td>$39,727,173</td>
</tr>
</tbody>
</table>

*These values are based on estimates and will be confirmed by MPAC upon completion of each phase of development.

2) Estimates were then prepared to identify the anticipated increase in municipal (Region and City) taxes (tax increment) that would be generated by the remediation and redevelopment for each phase.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Mun. Taxes “Pre”</th>
<th>Mun. Taxes “Post”</th>
<th>Tax Increment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterscape 1</td>
<td>$7,440</td>
<td>$345,660</td>
<td>$338,219</td>
</tr>
<tr>
<td>Waterscape 2</td>
<td>$N/A</td>
<td>$345,660</td>
<td>$345,660</td>
</tr>
<tr>
<td>South Parcel</td>
<td>$6,129</td>
<td>$898,713</td>
<td>$892,583</td>
</tr>
</tbody>
</table>

Note: All pre-remediation assessment and taxation allocated to Waterscape 1

3) The final step was to determine the estimated total eligible remediation costs for each phase as per the specifications of the joint TIG program which allows for a 10 per cent allowance for indirect remediation costs to be applied to estimates but also requires reductions for any government financial assistance previously received as part of a brownfield project. Other assistance received for Waterscape 1 includes both funding from the Phase II ESA Grant program as well as funding through Cambridge’s Contaminated Sites Grant program.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Waterscape 1</td>
<td>$700,559</td>
<td>$70,056</td>
<td>($227,240)</td>
<td>$543,375</td>
</tr>
<tr>
<td>Waterscape 2</td>
<td>$921,000</td>
<td>$92,100</td>
<td>TBD</td>
<td>$1,013,100</td>
</tr>
<tr>
<td>South Parcel</td>
<td>$5,230,984</td>
<td>$523,098</td>
<td>TBD</td>
<td>$5,754,082</td>
</tr>
</tbody>
</table>

The following table summarizes the maximum TIG and estimates of the Regional and City portions.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Maximum TIG</th>
<th>Regional Portion</th>
<th>City Portion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterscape 1</td>
<td>$543,375</td>
<td>$324,997</td>
<td>$218,378</td>
</tr>
<tr>
<td>Waterscape 2</td>
<td>$1,013,100</td>
<td>$605,944</td>
<td>$407,156</td>
</tr>
<tr>
<td>South Parcel</td>
<td>$5,754,082</td>
<td>$3,441,573</td>
<td>$2,312,507</td>
</tr>
<tr>
<td>Total</td>
<td>$7,310,557</td>
<td>$4,372,514</td>
<td>$2,938,041</td>
</tr>
</tbody>
</table>

Payments related to Waterscape 1 and 2 would not commence until at least one (1) year following the re-assessment of the development by the Municipal Property Assessment Corporation (MPAC). Payments related to the remediation costs of the south parcel (but based on the Tax Increments
generated by the north parcel) would commence only once the remediation of the south parcel is complete. TIG payments arising from the increase in assessment value generated on the south parcel would begin one year following MPAC re-assessment of that development.

It should be noted that the south parcel estimates are based on the high end remediation costs noted earlier in this report. If the soil disposal arrangement and other cost saving/management approaches are successfully implemented to lower overall costs, the total TIG received will also be reduced accordingly.

For each of the phases of this project, the applicant is required to pay all applicable property taxes for the property at all times during and after remediation and redevelopment until such time as ownership is transferred to the intended end-user (if applicable). The TIG is not an exemption from the property taxes levied, but a grant payable to the owner according to the payment schedule in accordance with an agreement between the parties. The joint TIG Program applies only to the municipal portion of the tax bill (not education portion that is remitted to the Province). Further, the final amounts of the TIG payments will be determined by the actual MPAC assessment value and classification and the final net eligible remediation costs, thus the final schedule of payments is subject to change.

As outlined above, this approach provides the applicant with the flexibility to complete remediation and redevelopment of both parcels within a reasonable timeframe. This flexibility is provided within a framework that still requires the applicant to meet certain milestones or risk a reduction in the ability to have the various phases included within the agreement.

For a summary of the overall TIG framework, please see Attachment 3.

**Interim Multi-Party Remediation and Redevelopment Agreement**

One of the requirements of the TIG Program is an Interim Multi-party Remediation and Redevelopment Agreement (the "Interim Agreement") between each of the land owners, the Region of Waterloo and the City of Cambridge. This agreement will include the conditions outlined in this report and establish to whom the TIG payments will be made given that there are separate owners of the properties.

Under the TIG Program, the owner must demonstrate that all of the requirements and conditions of the Interim Agreement have been met before any payments are made. A draft of the proposed Interim Agreement has been prepared by the Region’s Legal Services Division and can be made available for review. This Interim Agreement will be also be updated as additional financial information (including new assessment values and actual remediation costs or updated estimates for the south parcel) become available.

Once the remediation, redevelopment and reassessment of the north parcel (Waterscape 1 and 2) and the remediation of the south parcel have been completed, actual costs, through invoice review, will be verified and the Interim Agreement will be superseded by the Final Agreement. This Final Agreement will include the final TIG payments and payment schedule. The final TIG payments will be dependent upon the actual net eligible remediation costs and the actual MPAC reassessment value and classification. It is important to note that although the annual TIG payments and schedule could change, the maximum total amount eligible for the TIG remains capped. In the case of the Region’s TIG, this maximum or capped amount is $4,372,514 subject to any savings realized through use of the Regional Landfill as described in the report.

The legal agreement also sets out the requirements and process by which certain non-hazardous
materials may be accepted for disposal at a Regional landfill. In short, any such materials must be proved to meet pre-determined criteria established by the provincial Ministry of Environment pursuant to regulations under the Environmental Protection Act. A tipping fee consistent with the Region’s Fees and Charges by-law will be charged for such disposal. This will result in savings to the developer in terms of transport costs and other fees. Since the tax increment grant operates on the basis of a re-imbursement of funds expended by the property owners to remediate their respective property, these developer savings will ultimately benefit the Region of Waterloo and the City of Cambridge.

Status of other Brownfield Financial Incentive Pilot Program Elements

Two additional Tax Increment Grant applications in the City of Cambridge have been received and are currently being reviewed for eligibility. Give these two additional applications and the interest and inquiries that the Region has received to date from the development community, it is expected that additional applications for the Program will be received in 2011.

Further, it should be noted that the Townships of Wellesley, Wilmot, Woolwich and North Dumfries have initiated discussions to develop a Request for Proposal to retain a consultant to help develop the required Brownfields Community Improvement Plans to implement the joint TIG Program in each respective municipality. This would expand the geographic area where the joint TIG Program is available to six out of seven municipalities in the region. While Regional staff generally supports this expansion in the scope of the program, it does increase the potential for additional TIG applications and resulting requests for funding.

Staff anticipates undertaking a review and evaluation of the Pilot Program in the Summer of 2011. Results and recommendations will be brought back to Regional Council for their consideration in fall 2011. Further, as part of the review of the Pilot Program, Regional Staff are reviewing funding options for the TIG program and will report back to Regional Council with recommendations for an ongoing funding source.

Area Municipal Consultation/Coordination

Regional and City of Cambridge staff has reviewed the noted application and their respective TIG Application Review Committees have approved the application in principle. Both review committees are satisfied that the application meets eligibility and application requirements with the exceptions noted above. On March 28, 2011, Cambridge Council approved the above TIG agreement as outlined in Report CAO 2011-R11.

CORPORATE STRATEGIC PLAN:

The Regional Brownfields Financial Incentive Pilot Program directly addresses the Focus Area 2 - Growth Management: Manage and shape growth to ensure a liveable, healthy, prosperous and sustainable Waterloo Region - strategic objective which states: “Encourage compact urban form, reurbanization and mixed use development consistent with the goals of the Regional Growth Management Strategy.”

FINANCIAL IMPLICATIONS:

The primary principle of the joint TIG program is that the financial assistance received by the developer is essentially “paid for” by the increased tax assessment generated by the new developments. In the case of 130 &170 Water Street North, the total increase in municipal taxes (Regional and City) once both parcels are fully remediated and redeveloped is estimated at this time
to be approximately $1,576,462 per year. Over ten years, this represents an additional $15.7 million dollars in tax revenues received by the Region and City that would not otherwise have been generated if the site had remained in its 2008 state.

The Tax Increment Grant recommended for 130 & 170 Water Street North, City of Cambridge would result in a maximum contribution from the Region of $4,372,514 over the years 2012 to 2016 and beyond. The actual contribution for the Region could be less depending on final net remediation costs, final MPAC assessed values for the redevelopment and the actual timing of remediation and redevelopment. One-time funding for the Brownfields Financial Incentive Pilot Program in the amount of $2.5 million was provided for in the 2006 approved budget. Of that amount, $845,580 has been spent or committed while a further $390,000 will likely be required for pending expenditures for ESA grants and to assist the Townships in developing CIPs to allow for a joint TIG program with the Region. Spent, committed and pending expenditures total $1,235,580 or approximately half of the program budget. The balance, in the amount of $1,264,420, is sufficient to fund the Region’s portion of the TIG for 170 Water Street (north parcel) of $930,941 (maximum). A small balance of the initial program budget, $333,479, would be available for other pending TIGs. For 130 Water Street North, (south parcel), a funding source for this portion of the TIG in the amount of $3,441,573 (maximum) will be identified as part of the Reserve and Reserve Fund report planned for Administration and Finance Committee in May. Given that the south parcel is anticipated to be the last phase of development, the short delay in confirming the funding source will not be an issue. It should also be noted that the Region’s contribution would be recovered after approximately 4.6 years of receiving the full increase in Regional taxes generated by the full redevelopment of the north and south parcels (as proposed here). Further, even if the south parcel is only remediated but not developed within the timeframe proposed, the Region’s contribution would be recovered after approximately 10 years of increased tax assessment generated by the north parcel (Waterscape 1 and 2) alone.

A longer term strategy to provide on-going funding for TIGs is currently being developed by Finance staff and will be addressed over the next several months, potentially in conjunction with the next Development Charges By-law update in 2012 or 2013.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

Staff from Transportation and Environmental Services (Water Services and Waste Management), Finance and Legal Services have and continue to be involved in the development of the Regional Brownfield Financial Incentives Program.

ATTACHMENTS:

Attachment 1 - Remediation Cost Estimates
Attachment 2 - Details of TIG Calculations
Attachment 3 - Summary of Waterscape TIG Framework

PREPARED BY:  Brooke Lambert, Principal Planner, Brownfields Coordinator
                Angela Hinchberger, Director of Financial Services, Treasury & Tax Policy
                Jeff Schelling, Solicitor, Legal Services

APPROVED BY:  Rob Horne, Commissioner, Planning, Housing and Community Services
                Larry Ryan, Chief Financial Officer
                Debra Arnold, Regional Solicitor
170 Water Street N. (“North Parcel”) Remediation and Redevelopment

In early 2008, a severance of the larger property comprising both what is now 170 Water Street and 130 Water Street was permitted by the City of Cambridge to allow for the phased remediation and redevelopment of the two parcels due to the complex nature of the contamination on the south parcel noted above.

It is anticipated that redevelopment of the north parcel owned by Haastown Holdings will occur in two phases. The first phase or “Waterscape 1”, is currently underway and includes the ongoing risk management of the north parcel and the construction of a 14 story residential condominium with 115 units. Acknowledgement of Filing of Record of Site Condition by the Ministry of Environment was received on October 21, 2008. The Building Permit was issued for the north parcel in December 2008 and Site Plan Approval was granted on June 19, 2009. Construction is substantially complete with occupancy ongoing since December 2010.

The second phase of redevelopment or “Waterscape 2” includes another multi-unit residential condominium. Construction is anticipated to begin following the completion of Waterscape 1, with the exact timing depending on market conditions. Further risk mitigation and remediation for this phase will also be required. As part of this application, several pieces of information were submitted including a summary of remediation costs already incurred and yet to be incurred related to the redevelopment of Waterscape 2.

Watters Environmental Group Inc. (Watters Environmental) was retained by Haastown Holdings (Cambridge) Inc. to assist in the preparation of the remedial estimates, based on the remedial work plan and the results of the Risk Assessment and associated Certificate of Property Use (CPU) for the site. Costs include those related to:

- Implementing a cap across the entire site to block exposure to impacted soil and/or groundwater;
- Site preparation activities related to the construction of the cap; and
- Off-site disposal of impacted soils.

The estimates are as follows:

<table>
<thead>
<tr>
<th>North Parcel Remediation Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterscape Phase 1</td>
</tr>
<tr>
<td>Waterscape Phase 2</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

130 Water St. N. (“South Parcel”) Remediation and Redevelopment

The third phase of the project includes the risk assessment, remediation and redevelopment of the south parcel owned by Cambridge Mill Developments. The preliminary plan for the south parcel is that it be redeveloped into a hotel and conference centre to complement the existing mill structure adjacent to the site (and also owned by the same party).

2 Risk Management Measures refer to both the administrative (Certificate of Property Use, Health and Safety Requirements and Inspection and Maintenance Program) and physical controls (construction of a cap, use of clean fill material and specialized liners to contain the soil) to prevent adverse impacts upon the identified receptors from the contaminants of concern.
As part of the TIG application pertaining to the south parcel, a technical memorandum (prepared by AECOM) was submitted. This memorandum outlined the estimated remediation costs relating to the south parcel based on existing environmental information and current redevelopment plans. It should be noted that these estimates do not reflect any changes to the remedial work plan and risk assessment that may result from any new information garnered as a result of this process.

Estimates for the remediation of the south parcel included a low and high end and are broken into several components.

<table>
<thead>
<tr>
<th>Expense</th>
<th>Low End</th>
<th>High End</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Impacted Soil and Groundwater</td>
<td>$1,452,832</td>
<td>$1,716,634</td>
</tr>
<tr>
<td>3. Risk Assessment &amp; RSC</td>
<td>$90,000</td>
<td>$120,000</td>
</tr>
<tr>
<td>4. Phase 1 &amp; 2 ESA</td>
<td>$133,000</td>
<td>$162,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$4,549,032</strong></td>
<td><strong>$5,230,984</strong></td>
</tr>
</tbody>
</table>

Following discussions with the Region’s Waste Management staff, the applicants and their consultants, it was determined that the potential for significant cost savings could be achieved if the Region were to partner with the developers and agree to accept impacted but non-hazardous soils from both the north and south parcels for disposal at the Regional Landfill facility. To this effect, Aecom provided revised estimates that suggested the overall total eligible remediation costs on the south parcel could be reduced by approximately $2.2 million to a total of $3,022,760.

Further, revised estimates are expected to be provided as additional site characterization work is done to delineate the extent of the contamination on the south parcel.
Joint TIG Calculation Details

Pre-Remediation Assessment Values

In the 2008 taxation year (the year in which the Building Permit was issued), the site - both north and south parcels - was assessed at a total value of $604,400. The assessed value of the north parcel was $331,173. The south parcel was assessed at a value of $272,827. The 2008 municipal property taxes levied on the north parcel were approximately $2,990 for the City portion and $4,450 for the Regional portion (total municipal taxes of $7,440). On the south parcel, the City portion of taxes was approximately $2,463 and the Region’s was approximately $3,666 (total municipal taxes of $6,129). Overall, the total municipal taxes on both the north and south parcels were $13,569.

North Parcel – “Waterscape 1”

The applicant has projected post-remediation and redevelopment assessment value on the north parcel to be estimated at $30,000,000. Municipal property taxes levied after redevelopment would be approximately $138,918 for the City portion and $206,742 for the Region portion. This represents an increment of approximately $135,928 for the City portion and $202,292 for the Region portion and a total tax increment of $338,220.

Table 1 – Municipal Taxes & Increment Calculations (Waterscape 1)

<table>
<thead>
<tr>
<th>Property Tax</th>
<th>Pre-Remediation</th>
<th>Est. Post-Redevelopment*</th>
<th>Est. Increment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Municipal</td>
<td>$2,990</td>
<td>$138,918</td>
<td>$135,927</td>
</tr>
<tr>
<td>Region</td>
<td>$4,450</td>
<td>$206,742</td>
<td>$202,291</td>
</tr>
<tr>
<td>Total</td>
<td>$7,440</td>
<td>$345,660</td>
<td>$338,219</td>
</tr>
</tbody>
</table>

*Based on 2008 taxation rates

Based on the phased approach recommended, the applicant would receive a TIG equal to the increment between the pre-remediation and redevelopment municipal property taxes payable and the post-remediation and redevelopment municipal property taxes. The maximum amount of the grant related to Waterscape 1 would be based on the estimated eligible remediation costs related to the Waterscape 1 plus a 10% allowance for indirect costs (as outlined by the TIG Program), less any brownfield related financial assistance received to date from the municipality or the Region.

In 2007, the applicant received Phase II ESA grants in the amount of $17,740.31 and $40,000 for the north and south parcels respectively. In addition, the applicant anticipates receiving additional assistance in the form of the City of Cambridge’s Contaminated Sites Grant Program for a total of $1500/unit. With an estimated 113 units, the total of this assistance from the City of Cambridge is $169,500.

The final estimated net eligible remediation costs are:

<table>
<thead>
<tr>
<th>North Phase</th>
<th>Cost Estimate</th>
<th>10% Admin</th>
<th>Total</th>
<th>Other Asst.</th>
<th>Eligible</th>
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</thead>
<tbody>
<tr>
<td>Waterscape 1</td>
<td>$700,559</td>
<td>$70,056</td>
<td>$770,615</td>
<td>($227,240)</td>
<td>$543,375</td>
</tr>
</tbody>
</table>

The maximum TIG related to the eligible remediation costs of Waterscape 1 equals $543,375 of which the Region would pay $324,997 (approximately 60%) and the City would pay $218,378 (approximately 40%).
It should be noted that payment of the TIG would not commence until at least one (1) year following the re-assessment of the site by Municipal Property Assessment Corporation (MPAC) - in this case Waterscape 1. Thus, it is expected that the remediation costs related to Waterscape 1 would be recouped by the applicant within approximately two TIG payments, expected to occur in 2012 and 2013 respectively.

The applicant is required to pay all applicable property taxes for the property at all times during and after remediation and redevelopment, until ownership of the condominiums is fully transferred to the new owners. The TIG is not an exemption from the property taxes levied, but a grant payable to the owner according to the payment schedule in accordance with an agreement between the parties. The joint TIG Program applies only to the municipal portion of the tax bill (not education portion that is remitted to the Province). Further, the final amounts of the TIG payments will be determined by the actual MPAC assessment value and the final net eligible remediation costs, thus the final schedule of payments is subject to change. Total net eligible remediation costs for Waterscape 1, however, are capped at $543,375 taking into consideration other financial assistance provided to the applicant.

**North Parcel – “Waterscape 2”**

The projected post-remediation and redevelopment assessment value on the north parcel is estimated to be $30,000,000. Municipal property taxes levied after redevelopment would be approximately $138,918 for the City portion and $206,742 for the Region portion. This represents an increment of approximately $138,918 for the City portion and $206,742 for the Region portion and a total tax increment of $345,660. Because the "pre-remediation" taxes for the north parcel are fully accounted for within the calculation for Waterscape 1, the value of the pre-remediation taxes for the Waterscape 2 development are assumed to be zero.

<table>
<thead>
<tr>
<th>Property Tax</th>
<th>Pre-Remediation</th>
<th>Est. Post-Redevelopment*</th>
<th>Est. Increment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Municipal</td>
<td>0</td>
<td>$138,918</td>
<td>$138,918</td>
</tr>
<tr>
<td>Region</td>
<td>0</td>
<td>$206,742</td>
<td>$206,742</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0</strong></td>
<td><strong>$345,660</strong></td>
<td><strong>$345,660</strong></td>
</tr>
</tbody>
</table>

*Based on 2008 taxation rates

Thus, for this phase, the applicant would receive a TIG equal to the increment between the pre-remediation and redevelopment municipal property taxes payable and the post-remediation and redevelopment municipal property taxes. The maximum amount of the TIG related to Waterscape 2 would be based on the estimated eligible remediation costs related to the Waterscape 2 plus a 10% allowance for indirect costs (as outlined by the TIG Program), less any brownfield related financial assistance received to date from the municipality or the Region. The applicant may also be eligible for the Contaminated Sites Grant offered by the City of Cambridge ($1500/unit). Any funding that is received under this program would be subtracted from the total eligible costs. If no additional financial assistance for Waterscape 2 is received, then the full amount of estimated remediation costs would be considered eligible.

The final estimated net eligible remediation costs are:

<table>
<thead>
<tr>
<th>North Phase</th>
<th>Cost Estimate</th>
<th>10% Admin</th>
<th>Total</th>
<th>Other Asst.</th>
<th>Eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterscape 2</td>
<td>$921,000</td>
<td>$92,100</td>
<td>$1,013,100</td>
<td>TBD</td>
<td>$1,013,100</td>
</tr>
</tbody>
</table>
For Waterscape 2, the maximum TIG related to the eligible remediation costs equals $1,013,100 of which the Region would pay $605,944 (approximately 60%) and the City would pay $407,156 (approximately 40%).

It should be noted that payment of the TIG for Waterscape 2 would not commence until at least one (1) year following the re-assessment of the site by MPAC. Further, the applicant will be required to ensure a building permit for the construction of Waterscape 2 is obtained prior to January 1, 2016 or it will lose the ability to include this phase of the redevelopment within the overall TIG framework outlined herein. Based on these estimates, it is anticipated that the eligible remediation costs associated with Waterscape 2 would be paid within a four (4) year time frame.

Further, similar to Waterscape 1, the applicant is required to pay all applicable property taxes for the property at all times during and after remediation and redevelopment, until ownership of the condominiums is fully transferred to the new owners. Further, the final amounts of the TIG payments will be determined by the actual MPAC assessment value and final net eligible remediation costs, thus the final schedule of payments is subject to change. Total eligible net remediation costs for Waterscape 2, however, are capped at $1,013,100.

Similarly to Waterscape 1 above, it is also contemplated, that any residual TIG payments related to Waterscape 2 be applied to the eligible remediation costs incurred on the south parcel once the remediation and redevelopment of the south parcel is complete. If no remediation and redevelopment of the south parcel occurs within the specified time-frame, no transfer of TIG payments will be permitted.

**130 Water Street North - South Parcel**

The projected post-remediation and redevelopment assessment value on the south parcel is estimated to be $40,000,000. At the 2008 tax rate, municipal property taxes levied after redevelopment would be approximately $361,184 for the City portion and $537,529 for the Region portion. This represents an increment of approximately $358,720 for the City portion and $533,862 for the Region portion and a total tax increment of approximately $892,583.

<table>
<thead>
<tr>
<th>Property Tax</th>
<th>Pre-Remediation</th>
<th>Est. Post-Redevelopment*</th>
<th>Est. Increment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Municipal</td>
<td>$2,463</td>
<td>$361,184</td>
<td>$358,720</td>
</tr>
<tr>
<td>Region</td>
<td>$3,666</td>
<td>$537,529</td>
<td>$533,862</td>
</tr>
<tr>
<td>Total</td>
<td>$6,129</td>
<td>$898,713</td>
<td>$892,583</td>
</tr>
</tbody>
</table>

*Based on 2008 taxation rates

The third phase of the TIG payments relates to the total eligible remediation costs associated with the remediation and redevelopment of the south parcel and would commence only once the remediation and redevelopment of the south parcel is complete. Tax increments generated from the Waterscape 1 and 2 would be applied (if there is left-over tax assessment room) and could begin as soon as the remediation is complete (for Waterscape 1 assessment) and remediation and redevelopment is complete (for Waterscape 2). TIG payments arising from the increase in assessment value generated on the south site would begin one year following MPAC assessment.

As outlined above, the City and Region would establish a fixed maximum time frame of 15 years for the TIG schedule. In total the applicant would have a total of 15 years after the issuance of the first TIG payment under the legal agreement to complete the remediation and redevelopment and recoup all or a portion of their total remediation costs (with a maximum of 10 payments on each of the north and south parcels available). After 15 years, all payments will cease, regardless of whether
or not all eligible costs have been recouped.

The maximum amount of the TIG related to the south parcel would be based on the estimated eligible remediation costs related to the south parcel plus a 10% allowance for indirect remediation costs (as outlined by the TIG Program), less any brownfield related financial assistance received to date from the municipality or the Region (including any assistance received in the form of property tax write offs benefiting the applicant after the date of transfer of ownership in connection with the south parcel).

As noted above, the Region anticipates partnering with the developer and allowing for the disposal of impacted (but non-hazardous) soils related to the south parcel at a Regional Landfill facility. It is expected that this arrangement has the potential to significantly reduce the total eligible remediation costs on the south parcel (as can be seen by the “revised” estimates below).

Thus the final estimated net eligible remediation costs are:

<table>
<thead>
<tr>
<th>South Phase</th>
<th>Estimates</th>
<th>10%</th>
<th>Total</th>
<th>Other Asst.</th>
<th>Eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>High End / Max</td>
<td>$5,230,984</td>
<td>$523,098</td>
<td>$5,754,082</td>
<td>$0</td>
<td>$5,754,082</td>
</tr>
<tr>
<td>Revised</td>
<td>$3,022,760</td>
<td>$302,276</td>
<td>$3,325,036</td>
<td>$0</td>
<td>$3,325,036</td>
</tr>
</tbody>
</table>

For the south parcel, the maximum TIG related to the eligible remediation costs equals $5,754,082 of which the Region would pay $3,441,573 (approximately 60%) and the City would pay the balance of $2,312,507 (approximately 40%). It should be noted that the south parcel estimates are based on the high end remediation costs noted earlier in this report. If the soil disposal arrangement and other cost saving/management approaches are successfully implemented to lower overall costs, the total TIG received will also be reduced accordingly.

As outlined above, this approach provides the applicant with the flexibility to complete remediation and redevelopment of both parcels within a reasonable timeframe. This flexibility is provided within a framework that still requires the applicant to meet certain milestones or risk a reduction in the ability to have the various phases included within the agreement.
### Attachment 3

**Summary of Waterscape TIG Framework**

<table>
<thead>
<tr>
<th>TIG</th>
<th>Eligible Remediation Costs</th>
<th>Redevelopment Assessment</th>
<th>Initiation of Payments *</th>
<th>Max Pay.</th>
<th>Funding Cap</th>
<th>Region Portion**</th>
<th>City Portion**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterscape 1</td>
<td>Waterscape 1 &amp; Whole Site Investigation Costs</td>
<td>Waterscape 1</td>
<td>Payments begin 1 year after MPAC Assessment and invoices verified.</td>
<td>TBD</td>
<td>$543,375</td>
<td>$324,997</td>
<td>$218,378</td>
</tr>
<tr>
<td>Waterscape 2</td>
<td>Waterscape 2 Costs</td>
<td>Waterscape 2</td>
<td>Payments begin 1 year after MPAC Assessment and invoices verified.</td>
<td>TBD</td>
<td>$1,013,100</td>
<td>$605,944</td>
<td>$407,156</td>
</tr>
<tr>
<td>South</td>
<td>South Parcel Costs</td>
<td>South and Waterscape 1 &amp; 2 (if applicable)</td>
<td>Payments from Waterscape 1 begin after RSC on South. Payments from Waterscape 2 begin after RSC and Redevelopment on South. Payments on South begin 1 year after MPAC Assessment.</td>
<td>10</td>
<td>$5,754,082</td>
<td>$3,441,573</td>
<td>$2,312,507</td>
</tr>
<tr>
<td>ALL</td>
<td>Waterscape 1, 2 and South</td>
<td>Waterscape 1, 2 and South</td>
<td>Payments begin after remediation and redevelopment</td>
<td>10 North + 10 South</td>
<td>$7,310,557</td>
<td>$4,372,514</td>
<td>$2,938,041</td>
</tr>
</tbody>
</table>

* Payments may be deferred to a later starting date if requested by applicant.
** Estimate based on the 2008 tax split (Region = 59.811%, City= 40.189%).

### North Site - Remediation Estimates

<table>
<thead>
<tr>
<th>Estimates*</th>
<th>10%</th>
<th>Total</th>
<th>Eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterscape 1</td>
<td>$700,559</td>
<td>$70,056</td>
<td>$770,615</td>
</tr>
<tr>
<td>Waterscape 2</td>
<td>$921,000</td>
<td>$92,100</td>
<td>$1,013,100</td>
</tr>
<tr>
<td>Both</td>
<td>$1,621,559</td>
<td>$162,156</td>
<td>$1,783,715</td>
</tr>
</tbody>
</table>

* Costs related to Risk Management Measures (RMMs) will be subject to further review. Initial costs related to the implementation of RMMs will be considered eligible. Operating and Maintenance costs will not be considered eligible. All other RMMs will be considered on a case-by-case basis.

### South Site - Remediation Estimates

<table>
<thead>
<tr>
<th>Estimates</th>
<th>10%</th>
<th>Total</th>
<th>Eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original</td>
<td>$5,230,984</td>
<td>$523,098</td>
<td>$5,754,082</td>
</tr>
<tr>
<td>Revised*</td>
<td>$3,022,760</td>
<td>$302,276</td>
<td>$3,325,036</td>
</tr>
<tr>
<td>Difference</td>
<td>$2,208,224</td>
<td>$220,822</td>
<td>$2,429,046</td>
</tr>
</tbody>
</table>

* Revised estimates reflect the reduced soil disposal costs associated with the disposal of impacted and contaminated soils at the Regional Landfill.
TO: Chair Jim Wideman and Members of the Planning and Works Committee
DATE: April 12, 2011
FILE CODE: T15-40/28/C13-20/CA
SUBJECT: AMENDMENT TO REGIONAL MUNICIPALITY OF WATERLOO CONTROLLED ACCESS BY-LAW #58-87 FOR A TEMPORARY ACCESS TO REGIONAL ROAD #28 (HOMER WATSON BOULEVARD), CITY OF KITCHENER

RECOMMENDATION:

THAT the Regional Municipality of Waterloo approve an amendment to Controlled Access By-law #58-87 for a temporary right-in, right-out only access on the east side of Regional Road #28 (Homer Watson Boulevard) approximately 65 metres north of Block Line Road in the City of Kitchener as described in P-11-036, dated April 12, 2011.

SUMMARY:

The Region of Waterloo will be constructing a roundabout at the intersection of Homer Watson Boulevard and Block Line Road in the spring of 2011 which will result in the temporary closure of the east leg of Block Line Road at this intersection for approximately a three month period commencing late May or early June of 2011. Block Line Road will be closed from Homer Watson Boulevard easterly to the existing access to the Country Park Shopping Centre on the northeast corner of Homer Watson Boulevard and Block Line Road. The Block Line Road access to the Country Park Shopping Centre will remain open, however, traffic from Homer Watson Boulevard will be unable to access the property directly from Block Line Road.

The Tim Hortons restaurant in the plaza has expressed a concern with the potential loss of business caused by the temporary closure of Block Line Road at the intersection. Tim Hortons has requested consideration of a temporary access to Homer Watson Boulevard approximately 65 metres to the north of the Homer Watson Boulevard and Block Line Road intersection for the duration of the intersection closure. Region of Waterloo Transportation Planning staff have reviewed the request for the temporary access and can support a temporary right-in, right-out only traffic movement access at this location. Right-in, right-out only traffic movements from the plaza will be controlled by delineators placed on Homer Watson Boulevard at the temporary access to prohibit left turn movements from the plaza and from Homer Watson Boulevard. The delineators will be maintained by the roundabout contractor.

The temporary access will be removed when the east leg of Block Line Road is opened to traffic at which time the plaza parking area and adjacent boulevard will be restored to their original condition.

City of Kitchener staff has been notified of the temporary right-in, right-out only access to Homer Watson Boulevard and had initial concerns with delivery/garbage truck access to the site, restoration of the plaza parking area, grading and temporary lighting on Homer Watson Boulevard at the access. These concerns have been addressed and Kitchener staff is now satisfied with the proposal. Both the Tim Hortons restaurant and the plaza owner, Country Park Shopping Centre Incorporated has no objections to the temporary access.
As Homer Watson Boulevard is designated as a Controlled Access – Prohibited Road under the Regions Controlled Access By-law 58-87, an amendment to this by-law is required to permit the temporary access.

REPORT:

By-law #58-87, "A By-law to Designate and Regulate Controlled – Access Roads" was enacted to control the construction or alteration to the geometric design of any private means of access to a Regional road. All Regional roads are included in either Schedule “A” or Schedule “B” of the By-law. Regional roads included in Schedule “A” (Controlled Access-Prohibited) include arterial roads and freeways where access to these roads must be restricted due to high traffic speed and volume. The main function of a Controlled Access – Prohibited Road is to move through traffic. All requests for changes to existing accesses or for new accesses on these roads require an amendment to the By-law. All remaining Regional roads are included in Schedule “B” (Controlled Access – Regulated). The function of a Controlled Access – Regulated Road is to move through traffic and provide access to adjacent lands. Typically, these roads are front-lotted with access available only to the Regional road or are comparatively lower volume rural roads.

Country Park Shopping Centre Incorporated owns a plaza on the northeast corner of Homer Watson Boulevard and Block Line Road in the City of Kitchener. Access to the plaza is from Block Line Road and Hanover Street. The plaza contains a Tim Hortons restaurant and other retail/commercial uses.

The Region of Waterloo will be constructing a roundabout at the intersection of Homer Watson Boulevard and Block Line Road in the spring of 2011. In order to reduce the staging complexity and minimize the duration of the roundabout construction, it is anticipated that the east leg of Block Line Road will be closed for approximately three months commencing in late May or early June of 2011. While the Block Line Road and Hanover Street accesses to the Country Park Shopping Centre will remain open, traffic from Homer Watson Boulevard will be unable to directly access the plaza due to the closure of the east leg of Block Line Road for this period. Vehicular traffic will be able to access the plaza from the Block Line Road access via Fallowfield Drive and the access to Hanover Street.

Tim Hortons has expressed a concern over the potential loss of business they anticipate will occur with the closure of the east leg of Block Line Road at Homer Watson Boulevard and have requested a temporary access to Homer Watson Boulevard for the duration of the closure. Transportation Planning staff have reviewed the request for a temporary access to Homer Watson Boulevard and can support a right-in, right-out only access. Left turn traffic movements from Homer Watson Boulevard and from the plaza will be restricted through the installation of delineators placed on Homer Watson Boulevard at the temporary access. The delineators will be maintained by the roundabout contractor.

The temporary access will be removed when the east leg of Block Line Road is opened to traffic at which time the plaza parking area and adjacent boulevard will be restored to their original condition.

Staff has reviewed the temporary right-in, right-out only access to Homer Watson Boulevard and has no concerns.

Area Municipal Consultation/Coordination

City of Kitchener staff expressed concerns related to delivery/garbage pick up vehicle access to the plaza. It was determined that these vehicles would still be able to access the plaza from Hanson Avenue and Lennox Lewis Way using the Hanover Street and Block Line Road accesses. These vehicles would not be permitted to use Fallowfield Drive.
In addition, city staff raised concerns with restoration of the plaza parking area, grading and drainage and temporary lighting on Homer Watson Boulevard at the temporary access. These items will be considered in the planning process for the construction of the temporary access and Kitchener staff is now satisfied with the proposal.

CORPORATE STRATEGIC PLAN:

Focus Area 5: Infrastructure: Provide high quality infrastructure and asset management to meet current needs and future growth.

FINANCIAL IMPLICATIONS:

All costs for the installation of the temporary right-in, right-out only access to Homer Watson Boulevard for the Country Park Shopping Centre will be included with the roundabout construction contract and can be accommodated in the $2.3 M budget for this project.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

Corporate Resources will be required to amend Controlled Access By-law #58-87. Design and Construction will be required to include the temporary right-in, right-out only access to Homer Watson Boulevard in the roundabout contract at Homer Watson Boulevard and Block Line Road.

ATTACHMENTS:

Appendix A – Map showing the location of the subject property.
Appendix B – Conceptual plan showing the location of the proposed temporary right-in, right-out, only access to Homer Watson Boulevard.
Appendix C - Letter from Country Park Shopping Centre Incorporated indicating no objection to the temporary right-in, right-out only access to Homer Watson Boulevard.
Appendix D - Letter from Tim Hortons indicating no objection to the temporary right-in, right-out only access to Homer Watson Boulevard.

PREPARED BY: Bruce Erb, Transportation Planner

APPROVED BY: Rob Horne, Commissioner, Planning, Housing and Community Services
COUNTRY PARK SHOPPING CENTRE INC.
201-274 Shirley Avenue
Kitchener, Ontario N2B 2E1
Phone: 519 745 6417   Fax: 519 745 1271

March 28, 2011
Attention: Mr. Bruce Erb
Regional Municipality of Waterloo
Planning, Housing and Community Services
150 Frederick Street
8th Floor
Kitchener, ON
N2G 4J8
Phone: 519-575-4536
Fax: 519-575-4449
Email: BEr@regionsofwaterloo.ca

RE: Temporary Access at Country Park Shopping Centre Inc.

Hello Bruce, Please note that Country Park Shopping Centre Inc. agrees to the temporary right in and right out only access to Plaza during the roundabout construction at Homer Watson and Blockline.

Sincerely,
COUNTRY PARK SHOPPING CENTRE INC.

Joyce Cutajar
COMMERCIAL AND RESIDENTIAL PROPERTY MANAGER
Kingway Management Inc.
4225 JFV Stray Ave.
Kitchener Ontario, N2G-2E2
P: 519-579-8339 4256
F: 519-576-0790
jcutajar@kingwaymanagement.com
Region of Waterloo  
Transportation and  
Environmental Services  
Design and Construction  
150 Frederick Street  
Kitchener, On N2G 4J3

March 21, 2011

Attention: Mr Frank Kosa

Re: Contract 2011-012 Homer Watson Boulevard at Block Line Road  
Roundabout, Kitchener – Temporary Access to Tim Hortons during construction

Dear Sir,

This letter is to acknowledge Tim Hortons support to allow access to the Tim Hortons parking lot at 1450 Block Line Road from Homer Watson Boulevard during the duration of the Block Line Road closure due to the roundabout construction.

As per our discussion during our February 2nd meeting, our business is dependent on easy access for our customers to reach our location. I understand the access will be removed after Block Line Road is opened again to traffic and the parking area and adjacent boulevard will be restored to their original condition.

Yours truly,

[Signature]

Rick Doktor
MEMORANDUM

To: Chair Jim Wideman and Members of the Planning and Works Committee
From: John Stephenson, Senior Project Manager
Signature: ______________________________
Subject: HESPELER ROAD / CANADIAN PACIFIC RAILWAY GRADE SEPARATION, CITY OF CAMBRIDGE
PROJECT UPDATE AND NOTICE OF PRE-CONSTRUCTION PUBLIC OPEN HOUSE

File No: 5334

Project Background

The Hespeler Road / Canadian Pacific Railway Grade Separation project was initiated to address delays to Hespeler Road traffic associated with the existing at-grade Canadian Pacific Railway ("CPR") crossing approximately 250 metres north of the "Delta" intersection.

The project was initially directed by a Project Team consisting of Region of Waterloo and City of Cambridge staff, as well as City of Cambridge Councillors Ted Fairless (to end of 2006), Pam Wolf (2007 to present) and Ben Tucci, and Regional Councillor Jane Brewer (Cambridge). The Region’s engineering consultant for this project is IBI Group Limited.

The Project Team identified a grade separation as the preferred solution. A grade separation is an overpass or underpass structure that permits road and rail traffic to operate at separate elevations so that each can operate without interfering with the other. This solution was supported by a majority of those persons who submitted comments at the Public Information Centres conducted by the Region of Waterloo.

The key components of the Hespeler Road / CPR Grade Separation project are as follows:

- Construction of a new depressed rail corridor within the existing railway right-of-way to effect a lowering of the profile of the CPR track of approximately 5 metres (maximum) at Hespeler Road, with the depression tapering out to the east and west;
- Elevation of the profile of Hespeler Road by approximately 3 metres at the rail corridor (with the elevation tapering out to the north and south), including construction of an overpass bridge to carry the elevated Hespeler Road over the depressed CPR track;
- Reconfiguration of the Brooklyne Road / Norfolk Avenue / Hespeler Road intersection to improve the geometry of this intersection; and
- Modification or adjustment of existing driveway accesses to match the modified road profiles to preserve access to all properties within the project area.
Construction Tender

Detailed engineering design for the Hespeler Road / CPR Grade Separation was completed in January 2011. The Region advertised the tender for construction on February 9, 2011 and competitive bids were received on March 18, 2011. Staff will present a report to Council on April 20, 2011, to recommend award of the contract to the successful bidder.

Public Open House: Thursday, April 21, 2011

In February 2011, the Region sent a project update notice to area residents and businesses. This notice provided details of the upcoming construction schedule, as well as the many benefits of the project. The notices also indicated that subject to Regional Council award of the construction contract, the Region would host a pre-construction public Open House for interested residents and businesses later in April 2011, prior to the start of construction in May 2011.

Staff has now scheduled the public Open House for Thursday, April 21, 2011, from 5:00 p.m. to 9:00 p.m., at the Avenue Road Public School, 40 Gail Street, Cambridge. On April 13, 2011, staff will deliver notification of the date, time and location of the public Open House to area residents and businesses.
<table>
<thead>
<tr>
<th>Meeting date</th>
<th>Requestor</th>
<th>Request</th>
<th>Assigned Department</th>
<th>Anticipated Response Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-Dec-09</td>
<td>P&amp;W</td>
<td>Staff report on obtaining changes to Highway Traffic</td>
<td>Transportation and Environmental Services</td>
<td>May-2011</td>
</tr>
</tbody>
</table>