Regional Municipality of Waterloo
Planning and Works Committee

Agenda
Tuesday, October 27, 2016
10:30 a.m. - Note Time Change (Immediately Following Closed Session)
Regional Council Chamber
150 Frederick Street, Kitchener

1. Motion to Reconvene Into Open Session
2. Declarations of Pecuniary Interest under The Municipal Conflict Of Interest Act
3. Delegations

Consent Agenda Items
Items on the Consent Agenda can be approved in one motion of Committee to save time. Prior to the motion being voted on, any member of Committee may request that one or more of the items be removed from the Consent Agenda and voted on separately.

4. Request to Remove Items from Consent Agenda
5. Motion to Approve Items or Receive for Information

5.1 PDL-LEG-15-74, Authorization to Expropriate Lands (2nd Report) for King and Fountain Streets Road Improvements (250 King Street West), in the City of Cambridge
See Recommendation on page: 7

5.2 Snyder’s Road Improvements, from Christian Street to Gingerich Road, Village of Baden, Township of Wilmot – Information Package in Advance of Public Consultation Centre No. 1

5.3 Biosolids Strategy Launch Event – Information Package in Advance of Launch Event


Recommendation:

5.5 PDL-CPL-15-53, Amendment to Regional Municipality of Waterloo Controlled Access By-Law #58-87 for Access to Regional Road #58 (Fischer-Hallman Road), City of Kitchener

Recommendation:
That the Regional Municipality of Waterloo Controlled Access By-law #58-87 be amended to include a temporary construction access on the west side of Regional Road #58 (Fischer-Hallman Road) approximately 173 metres north of Huron Road in the City of Kitchener, as described in Report No. PDL-CPL-15-53, dated October 27, 2015.

Regular Agenda Resumes

6. Reports – Transportation and Environmental Services

Design and Construction

6.1 TES-DCS-15-25, Ottawa Street Improvements, Highway 7 Westbound Ramp to 250 Metres West of Charles Street, City of Kitchener – Approval of Project

Recommendation:
That the Regional Municipality of Waterloo take the following actions with respect to the proposed improvements on Ottawa Street (Regional Road 4) from the Highway 7 Westbound Ramp to 250 Metres West of
Charles Street in the City of Kitchener:

a) approve the Recommended Design Alternative for Ottawa Street (Regional Road 4) as outlined in Report TES-DCS-15-25;

b) direct staff to file the Notice of Completion for this Class Environmental Assessment Study by means of advertisements in local newspapers and mailings to adjacent property owners, tenants and agencies, and place the Environmental Study Report on the public record for a period of 30 days; and

c) upon completion of construction, amend Traffic and Parking By-law 06-072, as amended, to add to Schedule 24, Reserved Lanes on Both Sides of Ottawa Street (Regional Road 4) from Highway 7 to Charles Street for Bicycles.

6.2 TES-DCS-15-27, Update on Victoria Street Centre Median, Edna Street to Bruce Street, City of Kitchener (For Information) 74

6.3 TES-DCS-15-29, Fountain Street Improvements from Blair Road to Preston Parkway, City of Cambridge 86

Recommendation:

That the Regional Municipality of Waterloo take the following actions with respect to the proposed improvements to Fountain Street from Blair Road to Preston Parkway, in the City of Cambridge:

a) Approve the proposed improvements to Fountain Street from Blair Road to Preston Parkway as presented at the June 16, 2015 Public Consultation Centre and as described in Report TES-DCS-15-29; and

b) Amend the Traffic and Parking By-law 06-072, as amended, upon completion of construction to:

i) Add to Schedule 16 - Lane Designation, eastbound left turn, eastbound through on Fountain Street (Regional Road 17) at Limerick Road;

ii) Add to Schedule 16 - Lane Designation, eastbound left turn, eastbound through on Fountain Street (Regional Road 17) at Preston Parkway;

iii) Change Schedule 16 – Speed limit, 60 km/h, from Blair Road to 200 metres west of Preston Parkway; and

iv) Remove from Schedule 16 – Two-way passing zone, from 350 metres east of Blair Road to 50 metres west of Limerick Road.
Transportation

6.4 **TES-TRP-15-03.2**, Review of Posted Speed Limits Near Schools

**Recommendation:**

That the Regional Municipality of Waterloo approve the implementation of proven physical measures and safety countermeasures where applicable and feasible to reduce operating speeds and enhance safety on Regional roads adjacent to schools as outlined in Report TES-TRP-15-03.2, dated October 27, 2015.

Water Services

6.5 **TES-WAS-15-33**, Cogeneration at the Region’s Wastewater Treatment Plants

**Recommendations:**

That the Regional Municipality of Waterloo:

a) Endorse the plan for implementation of Cogeneration at Galt, Kitchener and Waterloo Wastewater Treatment Plants according to report TES-WAS-15-33 dated October 17, 2015;

b) Approve the approach for awarding the Renewable Energy Approval and Preliminary Design of the project for Cogeneration at the Region’s Wastewater Treatment Plants, and upon successful completion of this phase of the project, extend the consulting contract to also complete the Detailed Design and Construction Administration with the same Consultant in order to accelerate the implementation of this project.

7. Information/Correspondence

7.1 Council Enquiries and Requests for Information Tracking List

8. Other Business


10. Adjourn
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<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Description</th>
<th>Location</th>
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<tbody>
<tr>
<td><strong>Planning and Works Committee</strong></td>
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<tr>
<td>November 17, 2015</td>
<td>1:00 P.M.</td>
<td>Planning and Works Committee</td>
<td>Council Chamber 2nd Floor, Regional Administration Building 150 Frederick Street Kitchener, Ontario</td>
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<tr>
<td>December 8, 2015</td>
<td>1:00 P.M.</td>
<td>Planning and Works Committee</td>
<td>Council Chamber 2nd Floor, Regional Administration Building 150 Frederick Street Kitchener, Ontario</td>
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<td><strong>Planning, Development and Legislative Services</strong></td>
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<tr>
<td>Sat., October 24, 2015</td>
<td>3:00 P.M. – 5:00 P.M.</td>
<td>ION Public Art Project Community Consultation</td>
<td>Rockway Centre Auditorium 1405 King Street East Kitchener, Ontario</td>
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<tr>
<td>Tue., October 27, 2015</td>
<td>7:00 P.M. – 9:00 P.M.</td>
<td>ION Public Art Project Community Consultation</td>
<td>Waterloo Memorial Recreation Complex Hauser Haus 101 Father David Bauer Drive Waterloo, Ontario</td>
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<tr>
<td>Tue., October 27, 2015</td>
<td>5:00 P.M. – 8:00 P.M.</td>
<td>Balancing Environmental Protection and Transportation: The Laurel Creek Headwaters Environmentally Sensitive Landscape (ESL) Case Study Public Open House #2</td>
<td>Waterloo Region Emergency Services Training and Research Complex, Gate 3 1001 Erb’s Road Waterloo, Ontario</td>
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<td><strong>Transportation and Environmental Services</strong></td>
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<td>Thurs., November 5, 2015</td>
<td>5:30 P.M. – 8:00 P.M.</td>
<td>Snyder’s Road Improvements, from Christian Street to Gingerich Road, Village of Baden, Township of Wilmot – Public Consultation Centre No. 1</td>
<td>Township of Wilmot Offices Wilmot Community Room 60 Snyder’s Road Baden, Ontario</td>
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<tr>
<td>Tue., November 17, 2015</td>
<td>6:00 P.M. – 9:00 P.M.</td>
<td>Biosolids Strategy Launch Event</td>
<td>Waterloo Region Museum, Lobby 10 Huron Road Kitchener, ON</td>
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<td>Wed., November 18, 2015</td>
<td>2:00 P.M. 8:00 P.M.</td>
<td>Stage 2 Ion - LRT - Kitchener to Cambridge - Public Consultation Centre</td>
<td>Cambridge City Hall Bowman Room 50 Dickson Street Cambridge, Ontario</td>
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<tr>
<td>Thurs., November 19, 2015</td>
<td>4:00 P.M. - 8:00 P.M.</td>
<td>Ion Stage 2 Ion - LRT - Kitchener to Cambridge – Public Consultation Centre</td>
<td>Kingsdale Community Centre 72 Wilson Avenue Kitchener, Ontario</td>
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Region of Waterloo
Planning Development and Legislative Services
Legal Services

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: October 27, 2015  File Code: L07-90
Subject: Authorization to Expropriate Lands (2nd Report) for King and Fountain Streets Road Improvements (250 King Street West), in the City of Cambridge

Recommendation:

That Council of the Regional Municipality of Waterloo approve the expropriation of lands for the purpose of reconstruction of Fountain Street (Regional Road 17) from Shantz Hill Road to King Street West and King Street West (Regional Road 8) from Fountain Street to Eagle Street, in the City of Cambridge in the Region of Waterloo as detailed in Report PDL-LEG-15-74 dated October 27, 2015, described as follows:

Fee Simple Partial Taking:

Part of Lot 21, Municipal Compiled Plan 730, being Part 8 on Plan 58R-18324 and being parts of P.I.N. 03774-0530(LT) (250 King Street West);

Temporary Construction Easement:

The right and easement, being a temporary easement in gross, for the free and unobstructed, right, interest and easement terminating on the 31st day of December, 2019, for itself, its successors and assigns, and anyone authorized by it, on over, under and through the following properties for the purposes of excavation, construction, installation, replacement, alteration, grading, and landscaping as required in connection with the reconstruction and improvements to Fountain Street (Regional Road 17) and King Street (Regional Road 8) and Shantz Hill Road, and all works ancillary thereto and for such purposes, the free, unimpeded and unobstructed access to the lands at all times by employees, agents, contractors, workers and anyone authorized by it, and vehicles, supplies and equipment at all times and for all purposes and things necessary
for or incidental to the exercise and enjoyment of the right and easement.

- Part of Lot 21 and 22, Municipal Compiled Plan 730, being Parts 6, 7, 9, and 10 on Plan 58R-18324 and being parts of PIN 03774-0530(LT) and 03774-0485(LT);

**Permanent Easement:**

The right and easement, being an easement in gross, for itself, its successors and assigns and anyone authorized by it, in perpetuity to, at any time enter upon the following properties for purposes of constructing, installing, inspecting, repairing, altering, enlarging, correcting, operating, maintaining, replacing, and reconstructing the adjacent highway, above ground and underground municipal services including without limitation paving, curbs and gutters, retaining wall structures, sidewalks, multi-use trails, boulevard landscaping, street lighting, traffic signals, sanitary sewers, storm sewers, water mains, culverts, catch basins, drains, drainage works, together with all pipes, wires, conduits, poles, markers and other works and appurtenances thereto, which may be determined necessary from time to time through, under, over, upon, along and across the lands, and for all such purposes together with the free, unimpeded and unobstructed access for itself, its successors and assigns, servants, agents, contractors, workers and anyone authorized by it, and vehicles, supplies and equipment at all times and for all purposes and things necessary for or incidental to the exercise and enjoyment of the right and easement.

- Part of Lot 22, Municipal Compiled Plan 730, being Parts 11 and 12 on Plan 58R-18324 and Part 5 on Plan 58R-18365 and being parts of PIN 03774-0485(LT).

And that staff be instructed to register a Plan of Expropriation for the property within three months of the granting of the approval to expropriate the property, as required by the *Expropriations Act*;

And that the registered owners be served with a Notice of Expropriation and a Notice of Possession for the property after the registration of the Plan of Expropriation and the Regional Solicitor is authorized to take any and all actions required to enforce such Notices including but not limited to any application pursuant to Section 40 of the *Expropriations Act*;

And that all above-referenced fee simple partial takings situated adjacent to an existing Regional public highway be acquired for road widening purposes and therefore be deemed to form part of the adjacent public highway in accordance with subsection 31(6) of the Municipal Act, 2001, S. O. 2001, c.25;

And that if no agreement as to compensation is made with an owner, the statutory Offer of Compensation and payment be served upon the registered owners of the property in the amount of the market value of the interests in the land as estimated by the Region’s
appraiser in accordance with the Expropriations Act;

And further that the Regional Solicitor be authorized to discontinue expropriation proceedings or any part thereof, in respect of the above described lands, or any part thereof, upon the registration on title of the required documentation to complete the transaction or if determined by the Commissioner of Transportation and Environmental Services that such lands, or any part thereof, are not required for the subject Project.

Summary:

NIL

Report:

Regional Council approved the reconstruction of Fountain Street (Regional Road 17) from Shantz Hill Road to King Street West and King Street (Regional Road 8) from Fountain Street to Eagle Street, in the City of Cambridge (the “Project”) in October 2012. The Project Area is illustrated on Appendix A to this Report. The Environmental Assessment (EA) was approved by the Ministry of the Environment in August 2013. The Project EA investigated the need to address roadway and traffic operational improvements on the Fountain Street and King Street corridor and approved intersection improvements including transit queue-jump lanes along with other intersection improvements at the three intersections within the corridor: Fountain Street and King Street; King Street and Eagle Street; and the Fountain Street and Shantz Hill Road intersection. The Fountain Street and Shantz Hill Road intersection will also be realigned. The detailed design of the project is presently underway with construction planned for the spring of 2016.

The property interests required to undertake the Project include fee simple partial takings and both permanent and temporary easements from 24 properties in total. The expropriation process was initiated in two stages. The first stage, approved at the September 9th, 2014 meeting of the Planning and Works Committee and Council as detailed in report CR-RS-14-071, was for two properties required in advance to meet the project time line for utility relocations and grading works associated with those relocations in Fall 2015 or early 2016. Expropriation proceedings were then initiated for the balance of the properties, in a second stage, on November 4, 2014 as detailed in report CR-RS-14-095.

Regional Council approved the expropriation of all the properties, except 250 King Street West, on February 24, 2015 as detailed in report PDL-LEG-15-12 and August 19, 2015 as detailed in Report PDL-LEG-15-55. The requirements for 250 King Street West were finalized on a different timeline than the other properties required for this project. It is now in order to proceed with the approval of the expropriation of the interests required from the 250 King Street West to meet the planned construction of the project in 2016.

The Region has acquired all of the required interests by expropriation. The Region has entered into 6 settlement agreements and continues to negotiate the settlement of compensation with the remaining property owners.
The property interests required from 250 King Street West to undertake the Project include a fee simple partial taking and both permanent and temporary easements. A fee simple partial taking from this property will be incorporated into the road allowance. The permanent easement is required for the construction and future maintenance of a retaining wall and associated infrastructure, while the temporary easement is required to accommodate the construction of the road and facilitate grading along the property frontage in connection with the road improvements.

The appropriate forms under the Expropriations Act were served in order to initiate formal proceedings under the Act for these properties and easements. All of the affected property owners were previously contacted by Legal Services staff and informed of the project as well as the Region’s intention to commence the expropriation process and the Region’s Expropriation Information Sheet was provided to each of them. The affected property owners have also met with Regional representatives, and been provided with appraisals and/or offers to purchase.

The owners or their representatives for this property have been contacted to discuss the Region’s property requirements. As well, they have been advised, both verbally and in writing, of the necessity of continuing the expropriations process in order to meet project construction timelines with the assurance that, notwithstanding the commencement of the expropriation process, Regional staff and Regional representatives will make every effort to complete a negotiated agreement of purchase and sale by the end of 2015, and thereafter continue to negotiate an amicable settlement agreement for all interests acquired through expropriation. Written correspondence to the owner and their representatives included information sheets on the Region’s property acquisition process and the expropriation process. The property owner has been advised of this report being brought to Planning and Works Committee and Council for approval.

For reference, the subject lands are shown on attached Appendix ‘B’. Regional staff have conducted a corporate profile search of the affected corporate property owner and the directors and officers are listed in attached Appendix “C”. This list does not include tenants, easement holders or holders of security interests in the subject lands.

**Corporate Strategic Plan:**

One of the focus areas of the Corporate Strategic Plan is to develop greater, more sustainable and safe transportation choices.

**Financial Implications:**

Transportation and Environmental Services staff advises that the 2015 Ten Year Transportation Capital Program includes $17,340,000 over the years 2015 to 2017 for this project to be funded from the Regional Development Charges Reserve Fund.

**Other Department Consultations/Concurrence:**

Transportation and Environmental Services staff has been consulted in the preparation of this Report.
Attachments

Appendix “A” – Project Area
Appendix “B”- Sketch of Subject Property
Appendix “C”- Corporate Profile

Prepared By: Brian Timm, Property Agent
Fiona McCrea, Solicitor, Property

Approved By: Debra Arnold, Regional Solicitor, Director, Legal Services
Appendix “A” – Project Area
Appendix “B” - Sketch of Subject Property
Appendix “C”

Address: 250 King Street West
Owner: 2106432 Ontario Inc.
Annual Return: September 6, 2014
Directors/ Officers: Mohamad Khoramshahi
Snyder’s Road Improvements
Village of Baden, Township of Wilmot

What: Reconstruction of Snyder’s Road

Where: From Christian Street to Gingerich Road

Why: To Repair Pavement, Underground Infrastructure and Enhance Pedestrian and Cycling Facilities

When: Construction in 2018

Who: Region of Waterloo Project Manager
Mr. Ken Brisbois, C.Tech
Region of Waterloo
Phone: (519) 575-4606
Email: kbrisbois@regionofwaterloo.ca

We Want Your Input!

There’s a Comment Sheet at the Back of this Package. Please Fill it Out and Share Your Comments with Us.
1. **Why is the Region doing this Project?**

   The Region of Waterloo is currently considering improvements to Snyder’s Road through the Village of Baden, from Christian Street to Gingerich Road in the Township of Wilmot. This project has been initiated to address the deteriorated condition of the roadway and the underground infrastructure. The need for this reconstruction also presents an opportunity to incorporate enhanced facilities for pedestrians and cyclists along this section of Snyder's Road.

2. **Who is Directing this Project?**

   The planning of these infrastructure improvements is being undertaken by a “Project Team” consisting of staff from the Region of Waterloo, the Township of Wilmot and Township of Wilmot Councillor Barry Fisher. The Region has retained the consulting engineering firm of Walter Fedy to assist with the planning, design and contract administration of this project.

3. **How is this Project Being Planned?**

   This project is classified as a Schedule A+ undertaking in accordance with the Municipal Class Environmental Assessment planning process and is pre-approved to proceed to construction provided that appropriate public consultation is undertaken.

4. **What is the Purpose of this Public Consultation Centre?**

   The public is invited to this Public Consultation Centre (PCC) to:
   
   - review the improvements being considered for this project;
   
   - ask questions of staff from the Region of Waterloo and the Township of Wilmot; and;

   - provide comments and input regarding the planning and design of the improvements being considered.

   A Comment Sheet is attached to the back of this Information Package. Interested members of the public are requested to fill out this Comment Sheet and put it in the box at the Consultation Centre, or send it to the address indicated on the Comment Sheet. All comments received will be considered along with other information received over the course of the project to assist the Project Team in completing the planning and design for this project.
5. **What Improvements Are Being Considered?**

The Project Team is considering the following improvements to Snyder’s Road:

- Complete replacement of the pavement structure and most of the concrete curbs on both sides of Snyder’s Road;

- Widening to accommodate the construction of new 1.50 metre wide “on-road” cycling lanes on both sides from Christian Street to Foundry Street (to match the on-road cycling lanes to the west on Snyder’s Road);

- Widening to accommodate the construction of new 1.50 metre “segregated” cycling lanes (separated from traffic by a roll-over curb) on both sides from Foundry Street to Gingerich Road (to provide a traffic calming and speed reduction effect on this section of Snyder’s Road);

- Replacement of the existing storm sewers from Foundry Street to Sandhills Road;

- Urbanization of Snyder’s Road from Schneller Drive to Gingerich Road including the installation of new storm sewer and curb and gutter to replace the ditches and driveway culverts;

- Installation of new sidewalk on the south side of Snyder’s Road from Schneller Drive easterly to the village limits, just west of Gingerich Road;

- Replacement of deteriorated sidewalk from Christian Street to Schneller Drive with new sidewalk;

- Construction of a centre refuge island immediately west of Schneller Drive to allow pedestrians to cross the road one half at a time and only have to wait for gaps in one direction of traffic at a time; and

- Installation of new boulevard trees where space permits.

Please refer to Appendix ‘A’ for drawings showing the Project Team’s Preferred Design Concept for Snyder’s Road.
6. **How Do the Improvements Being Considered Relate to the Objectives of the Regional Transportation Master Plan, the Regional Active Transportation Master Plan and the Regional Transportation Corridor Design Guidelines?**

The Region of Waterloo’s Transportation Master Plan (RTMP), updated in 2010, is a high-level strategic plan that assesses existing and future traffic patterns and volumes throughout the entire Regional road network to determine the short and long-term needs for road improvements. The RTMP does not identify any need to widen Snyder’s Road in Baden beyond the existing two travel lanes. The RTMP, through its vision of sustainability, also supports measures that will improve the cycling and pedestrian networks in the project area.

The Regional Active Transportation Master Plan recommends that cycling lanes and sidewalks be provided on this section of Snyder’s Road.

The Context Sensitive Regional Transportation Corridor Design Guidelines (CDG) is a planning policy document that guides the design of Regional Roads. The CDG identifies design parameters for necessary features within road allowances such as vehicular lanes, cycling lanes, sidewalks and boulevards. According to the CDG, the middle section of Snyder’s Road (from Foundry Street to Brubacher Street) is classified as a “Neighbourhood Connector - Main Street”. Under this classification, this section of Snyder’s Road should be designed to include active transportation modes including walking and cycling. The other two sections of Snyder’s Road (from Christian Street to Foundry Street and from Brubacher Street to Gingerich Road) are classified as a “Rural Village - Main Street” and the CDG states they should be designed to include a focus on moving vehicles, with provisions for cyclists and pedestrians to complete connections to other specific areas and routes.

As a fundamental part of these classifications therefore, Snyder’s Road needs to be designed to support active transportation modes including walking and cycling. The implementation of the features identified in the Active Transportation Master Plan and the Corridor Design Guidelines will enable all road users, including cyclists and pedestrians, an opportunity to travel without obstructions within this community and beyond.
7. **What Cycling Facilities Are Proposed?**

On projects where new cycling facilities are being considered, the Project Team has a number of different options to consider including: painted on-road cycling lanes; “segregated” cycling lanes (separated from traffic by a wide roll-over curb); and multi-use trails which provide combined use for pedestrians and cyclists in the boulevards. The Region’s Active Transportation Master Plan recommends that cycling lanes and sidewalks be provided on this section of Snyder’s Road.

Multi-use trails provide the greatest separation to adjacent vehicles and accordingly afford the most comfort for cyclists. However, the presence of numerous driveways on Snyder’s Road precludes the use of a multi-use trail due to the conflict points with drivers exiting driveways and cyclists travelling in both directions on the trail.

Segregated cycling lanes are separated from the adjacent traffic lane, typically by a 0.7 metre wide mountable “roll-over” curb. Where space permits on Snyder’s Road, this type of cycling lane is recommended by the Project Team as the most appropriate type of cycling facility to provide cyclist comfort and encourage more cycling. The Regional right-of-way is wide enough between Foundry Street and Gingerich Road to accommodate segregated cycling lanes. In addition, speeding has been identified by the Project Team as an on-going local concern on this particular section of Snyder’s Road and the presence of curbs between the vehicle lane and the cycling lane will have a traffic calming effect on motorists and help to reduce speeds in this area. Segregated cycling lanes typically cost more to construct and maintain than on-road cycling lanes.

Between Christian Street and Foundry Street, the Project Team is recommending on-road cycling lanes to provide a consistent cycling facility to match the existing 5 km of on-road cycling lanes that currently exist from Christian Street westerly into New Hamburg.

8. **How is On-Road Parking Affected under the Preferred Design Concept?**

There are a number of commercial properties along Snyder’s Road where customer parking currently exists in a paved boulevard; at all of these locations, the Preferred Design Concept includes new boulevard parking spaces in front of these commercial establishments. So there would be no loss of parking in front of any of the commercial properties along Snyder’s Road.

In addition to the boulevard parking, on-road parking is also currently permitted on the south side of Snyder’s Road throughout the project limits. The south side parking is unmarked. In the urbanized area from Christian Street to Sandhills
Road, the south side lane width from centreline to curb averages 5.45 metres in width which is only marginally wide enough to allow an eastbound vehicle to pass a parked car without encroaching over the centreline.

As part of the planning for this project, the Project Team surveyed the existing parking usage to determine the current demand for parking. The results of this parking survey are summarized in Appendix ‘B’.

The survey was completed over two separate periods (in May and September/October 2015) and included both weekday and Saturday parking counts. The survey counted parked vehicles every 15 minutes between 7:00 am and 7:00 pm.

The results of the parking survey show that the existing available on-street parking spaces are not heavily used. The peak usage at any one time was on a Saturday when there were 7 vehicles parked on the street (out of 40 available spaces) between Brubacher Street and Sandhills Road. Overall on average, the available parking spaces were in use only 1-5% on weekdays and only 0-12% on weekends. The Preferred Design Concept would require the elimination of all of the south-side parking to accommodate the proposed cycling lanes. The Project Team recognizes that the removal of the south-side parking may inconvenience adjacent residents; however, most of the fronting driveways are deep enough or wide enough to accommodate multiple parked cars. In addition, with the exception of the section east of Sandhills Road, there are numerous sidestreets that would be available for overflow parking.

9. **How will the Proposed Improvements Enhance the Pedestrian Environment on this Project?**

All old deteriorated sidewalk within the project limits will be removed and replaced with new concrete sidewalk to match the existing width. From Schneller Drive easterly, it is proposed that the rural cross-section be converted to an urbanized cross-section with new storm sewers and curbs replacing the ditches and culverts, along with the addition of sidewalk on the south side from Schneller Drive to the last residential driveway, west of Gingerich Road. In addition, a short section of new sidewalk will also be installed on the west side of Sandhills Road to connect internally to the existing subdivision sidewalk network. Raised tactile domes will also be provided at all intersection sidewalk ramps to assist visually impaired pedestrians.
10. **Who will be Responsible for Winter Maintenance of the New Sidewalks?**
   As indicated in Section 9, there are some areas of new sidewalk proposed to be constructed as part of this project on Snyder’s Road where no sidewalk exists today. As with all sidewalk installations in the Township of Wilmot, snow removal on all sidewalks is the responsibility of the abutting landowners as per Township of Wilmot By-Law 84-72.

11. **Will the Posted Speed be Changed?**
   The posted speed limits will remain as they currently exist. The Project Team feels however that the introduction of the segregated cycling lanes east of Foundry Street, a pedestrian refuge island and new tree plantings will help promote slower speeds; research has shown that “vertical” elements (i.e. curbs, islands, trees) have a positive calming effect on driver behaviour.

12. **How will Existing Trees, Driveways, Retaining Walls and Lawns be Affected?**
   It is expected that some existing trees would 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 or trimming. It is the Region’s practice to plant two replacement trees for each tree removed where space permits in the road allowance. Any grassed areas disturbed during construction will be repaired to equal or better condition with topsoil and sod. In addition to replacing any trees removed 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. Any new landscaping typically occurs in a separately tendered landscaping contract in the year following construction. Driveways will be re-graded as necessary in order to blend smoothly with the newly constructed roadway.

   Some properties along Snyder’s Road currently have hard landscaping features such as rock gardens, ornamental lights, underground sprinkler systems or similar landscape features which are currently situated on the road right-of-way rather than on private property. If your property is identified as having these types of features on the roadway right-of-way, you will be contacted well in advance of construction and be requested to relocate these items from the right-of-way prior to construction.
13. **Is Any Private Property Required for this Project?**

The intent of the design process is to minimize the need to acquire property; however, in order to implement the proposed improvements the Region will need to acquire some property from several abutting property owners.

In areas where property is required, the property owner would be contacted directly by the Region of Waterloo’s Land Purchasing Officer. Compensation would 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.

14. **Will any Heritage Resources be Impacted by this Project?**

A large number of designated and listed heritage resources, as well as many unrecognized pre-1900’s homes/buildings along Snyder’s Road were identified within the project limits at the onset of this project. The Project Team has developed the proposed improvements to avoid impacts to these structures.

The Regional Heritage Planning Advisory Committee will be providing heritage related comments as the project proceeds through public consultation, as well as preliminary and detailed design.

Finally, during detailed design and approaching construction, the Region will be working with a consultant to conduct a precondition assessment/survey of all homes/buildings, including those identified as heritage resources, that directly front Snyder’s Road to document existing conditions of the structures prior to the works taking place in 2018. These surveys are very important in identifying and documenting the existing conditions prior to construction to help resolve any claims in the unlikely event that there is accidental damage of any kind as a result of the construction.

15. **When will Construction Occur? Will there be Detours?**

Construction on Snyder’s Road is tentatively scheduled to commence in 2018. The Region’s Transportation Capital Program is reviewed annually and the timing of projects may change depending on several factors.

Pedestrian access will be maintained at all times. Where the sidewalk is close to deep excavations, the sidewalk will be separated from the work area by temporary fencing. Signage will be erected in order to direct pedestrians through the project area.

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

As is customary during Regional Road reconstruction projects, motorists will be advised of the construction timing and traffic restrictions through advance signage and through information on the Region’s web site.

The overall length of the project is over 2.5km and construction will take a number of months to complete. The work would be undertaken in multiple stages to minimize the overall disruption to residents, businesses and their customers, and all other road users. At least one lane of traffic in one direction will be maintained at all times during the construction. Detours would be put in place as required via Gingerich Road, Foundry Street and Nafziger Road.

A detailed construction staging plan will be developed during the detailed design stage of this project and area property owners will be provided with details of the construction timing, staging and traffic management plans well in advance of construction.

16. How will Access to Properties be Maintained During Construction?

Access to residential/commercial driveways will be maintained to the greatest extent possible during construction. The Contractor will be required to temporarily block access to and from driveways on Snyder’s Road and side streets for short-term periods when completing certain construction operations. Where a disruption to your driveway is expected, the Contractor is required to hand-deliver a notice at least 48 hours in advance advising you of the time and duration of the driveway disruption. If necessary, alternate parking arrangements will be made, such as provision for temporary parking on adjacent side streets.

For commercial properties, access for customers will be maintained at all times. If only one driveway access exists, the Contractor will endeavour to complete the work across the driveway in two stages where feasible in order to maintain customer access.

Property and business owners are asked to contact the Project Manager if they have any concerns in relation to access, signage or other issues during the project so it can be determined if reasonable changes or modifications can be made.
17. **Can my Existing Water Service be Upgraded?**

Replacement of the existing distribution watermain within Snyder's Road is not being proposed as part of this project and, as such, water service replacements are not planned. If property owners wish to increase the size of the water service to their property beyond the standard 19mm size (i.e. to achieve increased flow) they may choose at their own cost to have this work included during 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 Township of Wilmot 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 do wish to discuss an increase in the size of your water service, please indicate so on your comment sheet. From this information, staff will contact you at a later date to discuss your plans and any further requirements.

Additionally, property owners may wish to consider replacing the water service on their private property (i.e. between the property line and their building) during the construction activities. Property owners can inquire to arrange this work directly with the Region’s Contractor on-site during construction but it cannot be guaranteed that the Contractor will be able to accommodate this additional work request.

18. **Can my Existing Sanitary Service be Up-graded?**

Replacement of the existing sanitary sewer within Snyder’s Road is not being proposed as part of this project and, as such, sanitary service replacements are not planned. If property owners wish to increase the size of the sanitary service to their property beyond the standard 100mm size (i.e. to achieve increased flow) they may choose at their own cost to have this work included during 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 Township of Wilmot and the property owner, existing sanitary services may be upgraded from the sanitary sewer main 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, please indicate so on your comment sheet. From this information, staff will contact you at a later date to discuss your plans and any further requirements.
Additionally, property owners may wish to consider replacing the sanitary service on their private property (i.e. between the property line and their building) as part of this construction. Property owners can inquire to arrange this work directly with the Region’s Contractor on-site during construction but it cannot be guaranteed that the Contractor will be able to accommodate this additional work request.

19. **What is the Estimated Cost of this Project? How will it be Funded?**

The Region of Waterloo is funding the roadworks portion of this project from its Roads Rehabilitation Reserve Fund. The budget for the proposed roadworks including road reconstruction, new sidewalk, on-road and segregated cycling facilities as well as driveway and boulevard restoration, is $5,755,000. The Township is funding the costs for replacement of deteriorated existing sidewalk replacement as well as a share of the storm sewer replacement at a total estimated cost of $120,000.

20. **What are the Next Steps?**

Prior to finalizing the preliminary design of this project for Regional Council's approval, the Project Team is asking for the public’s input on the improvements being considered. This Public Consultation Centre is your opportunity to ask questions, provide suggestions, and make comments. The Project Team will use the comments obtained from the public during this Public Consultation Centre to refine the proposed design in conjunction with other technical data.

21. **When will a Final Decision be Made?**

The Project Team will review the public comments received from this Public Consultation Centre and use them as input for identifying a Recommended Design for the Snyder's Road Reconstruction Project. In advance of this meeting, 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.
22. **How will I Receive Further Notification Regarding this Project?**

Adjacent property owners and members of the public registering at this Public Consultation Centre will receive all forthcoming public correspondence, and will be notified of any future meetings.

23. **How Can I Provide My Comments?**

In order to assist the Project Team in addressing any comments or concerns you might have regarding this project, we ask that you fill out the attached Comment Sheet and leave it in the comment box provided at the registration table. Alternatively you can mail, fax or e-mail your comments to the Project Team member listed below, no later than Friday, November 20, 2015.

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

Ken Brisbois, Project Manager  
Region of Waterloo  
150 Frederick Street, 6th Floor  
Kitchener, ON N2G 4J3  
Telephone: (519) 575-4606  
Fax: (519) 575-4430  
Email: bKENNETH@REGIONOFWATERLOO.CA

Dan Schipper, Project Manager  
Walter Fedy  
675 Queen Street S., Suite 111  
Kitchener, ON N2M 1A1  
Telephone: (519) 576-2150  
Fax: (519) 576-5499  
Email:dschipper@walterfedy.com

24. **How Can I View Project Information Following the PCC?**

All of the PCC display materials and other relevant project information, notifications of upcoming meetings and contact information are available for viewing at the Region of Waterloo municipal office as identified above. Alternatively, you may visit the Region’s website at www.regionofwaterloo.ca.
Appendix A

Cross Sections

SNYDER’S ROAD RECONSTRUCTION
(CHRIStIAN STREET TO FOUR DRY STREET)
TYPICAL CROSS SECTION - MAINTAINING SOUTH CURB LINE

SNYDER’S ROAD RECONSTRUCTION
(FOUR DRY STREET TO GINGERICH)
TYPICAL CROSS SECTION - SEGREGATED BIKE LANES
OPTION 2
### Appendix B

Existing On-Street Parking Usage Study

<table>
<thead>
<tr>
<th>Blocks Along Snyder's Road</th>
<th>Existing Number of Spaces</th>
<th>Weekday Usage **</th>
<th>Saturday Usage **</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Daily Average (7am to 7pm)</td>
<td>Peak</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Daily Average (7am to 7pm)</td>
<td>Peak</td>
</tr>
<tr>
<td>Christian to Foundry (South)</td>
<td>9</td>
<td>2%</td>
<td>22% (2/9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7%</td>
<td>44% (4/9)</td>
</tr>
<tr>
<td><strong>PARKING PROHIBITED</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christian to Foundry (North)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundry to Brubacher (South)</td>
<td>20</td>
<td>3%</td>
<td>30% (6/20)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>PARKING PROHIBITED</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundry to Brubacher (North)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brubacher to Sandhills (South)</td>
<td>40</td>
<td>5%</td>
<td>10% (4/40)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12%</td>
<td>18% (7/40)</td>
</tr>
<tr>
<td><strong>PARKING PROHIBITED</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brubacher to Sandhills (North)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sandhills to Gingerich (South)</td>
<td>30</td>
<td>1%</td>
<td>3% (1/30)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Sandhills to Gingerich (North)</td>
<td>30</td>
<td>1%</td>
<td>3% (1/30)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

** Parking usage percentages for on-street parking on Snyder's Road are shown as an average or peak usage per 30 minute time interval between the hours of 7am and 7pm.
Christian Street to Foundry Street

From Christian to Street to Foundry Street, the frontage is predominantly residential with some commercial properties closer to Foundry Street. Parking is currently prohibited on the north side and permitted on the south side. The south-side parking is unmarked but there is space for approximately 9 vehicles. Over the period of the parking survey, the available parking spaces were only in use in this section less than 7% of the time. The Preferred Design Concept includes elimination of all of the south-side parking to accommodate the proposed on-road cycling lanes. The Project Team recognizes that the removal of the south-side parking between Christian Street and Foundry Street may inconvenience adjacent residents; however, most of the fronting driveways are deep enough or wide enough to accommodate multiple parked cars and there are numerous sidestreets that would be available for overflow parking.

Foundry Street to Brubacher Street

The frontage between Foundry Street and Brubacher Street is a mixture of residential and commercial properties. The commercial properties all have some boulevard parking which would be reinstated behind the cycling lane under the Preferred Design Concept. On-road parking is currently permitted on the south side only. The south-side parking is unmarked but there are approximately 20 existing on-road spaces available. Over the entire period of the parking survey, the available parking spaces were only in use in this section less than 6% of the time. The Preferred Design Concept includes elimination of all of the south-side parking to accommodate the proposed segregated cycling lanes. The Project Team recognizes that the removal of the south-side parking between Foundry Street and Brubacher Street may inconvenience adjacent residents; however, most of the fronting driveways are deep enough or wide enough to accommodate multiple parked cars and there are numerous sidestreets that would be available for overflow parking.

Brubacher Street to Sandhills Road

From Brubacher Street to Sandhills Road, the frontage is predominantly residential. In this area parking is permitted only on the south side. The south-side parking is unmarked but there are approximately 40 existing on-road spaces available. Over the entire period of the parking survey, the available parking spaces were only in use in this section approximately 12% of the time. The Preferred Design Concept includes elimination of all of the south-side parking to accommodate the proposed segregated cycling lanes. The Project Team recognizes that the removal of the south-side parking between Brubacher Street and Sandhills Road may inconvenience adjacent residents; however, most of the
fronting driveways are deep enough or wide enough to accommodate multiple parked cars and there are numerous sidestreets that would be available for overflow parking.

In addition to the on-road parking, there are approximately 23 boulevard parking spaces for adjacent businesses in this section which are heavily used both during weekdays and weekends. The Preferred Design Concept would provide an increase in the number of boulevard parking spaces to a total of 26.

**Sandhills Road to Gingerich Road**

From Sandhills Road to Gingerich Road, Snyder’s Road is a rural cross-section with gravel shoulders and there are no parking restrictions on either side of the road. There is room for approximately 60 vehicles to park between Sandhills Road and Gingerich Road on the gravel shoulder. There are 15 residential properties fronting this section of Snyder’s Road, all with long wide driveways. Over the 3 days surveyed in this section, only 6 parked vehicles were observed and all were parked for very short durations. It is proposed that parking be eliminated in this section to accommodate the segregated cycling lanes.
Comment Sheet

Regional Municipality of Waterloo
Snyder’s Road Improvements
Christian Street to Gingerich Road
Village of Baden, Township of Wilmot

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 November 20, 2015 to:

Mr. Ken Brisbois, C. Tech
Project Manager
Region of Waterloo
150 Frederick Street, 6th Floor
Kitchener, ON N2G 4J3
Phone: (519) 575-4606
Fax: (519) 575-4430
Email: kbrisbois@regionofwaterloo.ca

Are you interested in upgrading your water service as part of this project? [optional]
☐ YES ☐ NO

Are you interested in upgrading your sanitary service as part of this project? [optional]
☐ YES ☐ NO

Comments or concerns regarding this project:
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Are you interested in upgrading your water service as part of this project? [optional]

Are you interested in upgrading your sanitary service as part of this project? [optional]

Comments or concerns regarding this project:
Name: ________________________________________________________________

Address: ______________________________________________________________

Postal Code ___________________________________________________________

Phone: _________________________ Email: ________________________________

Collection Notice

All comments and information received from individuals, stakeholder groups and agencies regarding this project are being collected to assist the Region of Waterloo in making a decision. Under the “Municipal Act”, personal information such as name, address, telephone number, and property location that may be included in a submission becomes part of the public record.
Welcome!

BIOSOLIDS
Strategy

LAUNCH EVENT
November 17, 2015
Waterloo Region Museum, 10 Huron Road, Kitchener

Region of Waterloo

www.regionofwaterloo.ca/biosolids
The Region of Waterloo is initiating a **Biosolids Strategy**.

At this launch event you will have an opportunity to:

- Learn about the science of biosolids and their potential uses
- Discuss the Biosolids Strategy process
- Fill out a survey
- Provide feedback

**Tonight’s Agenda**

**6:00 - 9:00 - Open House**

Have a look at the project information on display and chat with Region staff.

**7:00**

Listen to **Bob McDonald** talk about the Science of Biosolids and participate in a Q&A.

**Note:** Space is limited and this portion of the evening is open only to pre-registered guests. The full talk with Bob McDonald will be recorded and available online at [www.regionofwaterloo.ca/biosolids](http://www.regionofwaterloo.ca/biosolids) shortly after tonight.

**SPECIAL GUEST:**

**Bob McDonald**

*The Science of Biosolids*

Canada’s best-known science journalist and host of CBC’s Quirks and Quarks.
Wastewater and sewage from towns are transported through a series of complex pipelines to a sewage treatment plant...

Inside the sewage treatment plant, a series of processes is performed where water is separated and treated.

The clean water is then returned to the environment

The separated material is also treated...

And the remaining product is BIOSOLIDs!

Biosolids are not:
- Septage
- Untreated wastewater
- Manure
Biosolids in Waterloo Region Today

“When you finish doing your business, that’s when the Region of Waterloo gets busy doing its business.”

535,000 Residents... and growing!

66 Million m³ of wastewater processed every year...

...equivalent to 26,400 Olympic-sized swimming pools!

13 Wastewater Treatment Plants

Liquid sludge is processed to produce X,X00 dry tonnes of biosolids every year, equivalent to x,000 truckloads

In a recent telephone survey, over two-thirds of respondents believed that processing biosolids within the Region is a good financial and environmental decision

LAND APPLICATION
Much of the biosolids produced in the Region's treatment plants is transported out of the Region for land application in Wellington County, County of Brant, City of Hamilton, Middlesex County, County of Oxford, and Perth County.

SAFE DISPOSAL VIA LANDFILL
The remainder of biosolids produced in the Region's treatment plants is safely disposed of via landfills in Blenheim and Petrolia, Ontario.
The Potential Power of Biosolids

Biosolids can either become...

**Beneficial Reuse**

Biosolids can be used by farmers as a fertilizer. Using biosolids as a fertilizer means reduced costs for farmers and a lower impact on the environment.

**Landfill**

Biosolids are safely disposed of in landfills, where they decompose over time to produce greenhouse gases.

Biosolids can also make soil quality better by adding organic material that helps retain water, balance pH, and add micronutrients to soil.

**Soil Conditioner**

Digesters, used in some biosolids production methods, produce biogas. Biogas is a fuel that can be used in place of natural gas, or as a vehicle fuel.

**Biogas Production**

Biosolids may be used as land cover in rehabilitation projects to repair damage done to soil.

**Recovering Land**

Biosolids may be combined with other fuels to generate electricity through high efficiency combustion technologies.

**Generating Electricity**

Or end up in...
Waterloo Region Waste Water Treatment Plants

DID YOU KNOW?
Biosolids are already being handled in 13 facilities across the Region. Three plants in the Region treat over 80% of wastewater generated - the Kitchener, Waterloo and Galt plants.

LARGE TREATMENT PLANTS
Processing Capacity > 50 Million Litres/day
1. Kitchener
2. Waterloo
3. Galt

MID-SIZED TREATMENT PLANTS
Processing Capacity 5 to 20 Million Litres/day
4. Preston
5. Hespeler
6. Elmira
7. New Hamburg

SMALL TREATMENT PLANTS
Processing Capacity < 5 Million Litres/day
8. Ayr
9. St. Jacobs
10. Wellesley
11. Heidelberg
12. Conestogo
13. Foxboro Green
Why do we need a Biosolids Strategy?

Finding suitable locations for the application of biosolids will only become more challenging.

Updates to regulations can place more restrictions on how we can use biosolids.

The costs associated with trucking, storage and disposal of biosolids will continue to rise over time.

We all contribute to the creation of biosolids!

Biosolids are produced constantly, all year round. And our population is only increasing.

The region is expected to grow by the size of the City of Kitchener in the years ahead.

Population Growth

Land Constraints

Regulatory Changes

Increasing Costs

“We are all involved in creating biosolids, so we should all be involved in determining what we do with them as a community. The best strategies take the whole community’s interests to heart and we need the public to help us identify the best possible solutions.”

- Kaoru Yajima
Water Services project manager at the Regional Municipality of Waterloo

We may have an opportunity through investment in new technologies to enhance the biosolids we produce to create a safer, more flexible product.
Planning for a Sustainable Solution

The Region has taken a long-term approach to planning its biosolids management program, with the key goal of volume reduction to allow for a wider range of reuses and more cost-effective disposal.

In considering our long-term strategy, there are a lot of complex questions that need to be answered:

- How do we process this stuff?
- Where should it go? What about odour?
- How can it benefit our economy?
- What's important to our community?
- What are the right technologies to use?
- What is the impact on the environment?
- What are the costs?
- How does it fit with other plans and programs?

Where we have been...

2003

- 2003 Biosolids Master Plan
  - Completion of...
    - Galt Wastewater Treatment Plant Dewatering
    - Kitchener Wastewater Treatment Plant Dewatering
    - Waterloo Wastewater Treatment Plant Dewatering
    - Digester Upgrades

2011

- 2011 Biosolids Master Plan
  - Decommissioning of Kitchener Biosolids Storage Lagoons

2015

- Study Initiated
- Established a new public engagement and communications approach

2019

- 2019 Biosolids Master Plan

...and where we want to go
**Biosolids Master Plan Process**

**PHASE 1**
- Problem definition, establish Project Charter vision, Master Plan Process
- What are biosolids?
- Ask questions at this launch event
- Provide feedback on the upcoming Project Charter draft
- Learn more about biosolids at Public Consultation Centre #1
- Help us establish the Master Plan study process at Public Consultation #2

**PHASE 2**
- Collect data, review existing conditions
- What problem are we solving?
- Provide feedback for a background review and data collection activities at Public Consultation Centre #3

**PHASE 3**
- Analyze future needs, opportunities, and constraints
- Should we do this inside or outside the Region?
- Confirm the decision-making process at Public Consultation Centre #4

**PHASE 4**
- Identify biosolids technologies and disposal methods
- Biosolids: waste or resource?
- Participate in discussions regarding potential strategies and technologies at Public Consultation Centre events #5 and #6

**PHASE 5**
- Identify and evaluate biosolids management strategies
- What goes where?
- Review and comment on recommended strategies at Public Consultation Centre #7

**PHASE 6**
- Recommend strategies and final Biosolids Master Plan

**What's our plan?**
- Biosolids: waste or resource?
- What goes where?
- Should we do this inside or outside the Region?
- Biosolids: waste or resource?
- What goes where?
- Should we do this inside or outside the Region?

**HOW YOU CAN GET INVOLVED**
How You Can Help...

Over this multi-year planning process, there will be a number of ways you can get involved. Here’s how you can help our community identify the best possible solutions:

- Ask questions today
- Fill out the questionnaire here or online
- Sign up for our contact list
- Visit www.regionofwaterloo.ca/biosolids
- Apply to be a member of our Stakeholder Committee
- Attend upcoming events.
- We can meet with your group or organization.

And if you have any questions or concerns, please do not hesitate to contact:

**KAORU YAJIMA**, P.Eng.
Senior Project Engineer
Water Services – The Regional Municipality of Waterloo
150 Frederick Street, 7th Floor
Kitchener, ON N2G 4J3

Tel: 519-575-4757 ext. 3349
Fax: 519-575-4452
TTY: 519-575-4608
Email: kyajima@regionofwaterloo.ca

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Work will completed to meet the requirements of the Environmental Assessment Act as outlined by the Municipal Engineers Association Municipal Class Environmental Assessment (Oct 2000 as amended 2010) process.
How would you like to be involved?

What other ways would you like to be involved with this project?

Have an idea for an event?

Who are the key stakeholders that we should ensure are part of this process?

Please leave us your thoughts below:
Region of Waterloo

Planning, Development and Legislative Services

Community Planning

To: Chair Tom Galloway and Members of the Planning and Works Committee

Date: October 27, 2015  File Code: D18-01


Recommendation:


Summary:

In accordance with the Regional by-law 01-028, as amended, the Commissioner of Planning, Development and Legislative Services has:

- Approved the following part lot control exemption by-laws;
- Accepted the following plans of condominium;
- Modified the following draft plan of subdivision; and
- Approved the following official plan amendments.

Report:

City of Cambridge

Part Lot Control Exemption By-law 148-15

Applicant: Grandview Homes

Location: Honey Road

Proposal: To permit the creation of 11 townhouse units.

Regional Processing Fee: Paid September 28, 2015

Commissioner’s Approval: September 29, 2015
Plan of Condominium Application 30CDM-15101
Date Accepted: September 24, 2015
Applicant: 2385187 Ontario Ltd.
Location: 26 Water Street North
Proposal: To permit the development of a three storey building containing 2 ground floor commercial units and 4 above ground residential condominium apartment units.
Regional Processing Fee: Paid September 14, 2015

Official Plan Amendment Number 9
Applicant: Scott and Tracey Matthews
Location: 156 Royal Oak Road
Proposal: To permit a site specific exception to City Official Plan Policy 8.4.6.10 which requires new development on this property to be on full municipal water and sanitary services. The amendment will allow two new dwellings to be serviced by private services.
Regional Processing Fee: Paid August 17, 2015
Commissioner's Approval: September 1, 2015
Came Into Effect: September 22, 2015

City of Kitchener

Plan of Condominium Application 30CDM-15208
Date Accepted: September 30, 2015
Applicant: 2437612 Ontario Inc. and 1841949 Ontario Inc.
Location: 58 Howe Drive
Proposal: To permit the development of 24 residential condominium apartment units.
Regional Processing Fee: Paid September 30, 2015

City of Waterloo

Plan of Condominium Application 30CDM-15405
Date Accepted: September 3, 2015
Applicant: 110 Columbia JV Ltd.
Plan of Condominium Application 30CDM-15405
Location: Columbia Street West
Proposal: To permit the conversion of 198 residential rental apartment units to condominium ownership.
Regional Processing Fee: Paid August 21, 2015

Plan of Condominium Application 30CDM-15406
Date Accepted: September 9, 2015
Applicant: IN8 (Sage II) Developments Ltd.
Location: 318 Spruce Street
Proposal: To permit the development of 18 residential condominium apartment units, 12 office units, 5 commercial units and 32 locker units.
Regional Processing Fee: Paid August 14, 2015

Township of North Dumfries
Official Plan Amendment Number 28
Applicant: Jomar Cattlefeeders Inc.
Location: 869 Brant-Waterloo Road, Ayr
Proposal: To change the designation of approximately 4.045 hectares from “Agricultural” and “Special Policy Area 2.7.9” to “Urban Residential and Ancillary”, primarily to support additional residential development in the Ayr Township Urban Area.
Regional Processing Fee: Paid July 29, 2015
Commissioner’s Approval: September 25, 2015
Came Into Effect: October 16, 2015

Modification to Draft Plan of Subdivision 30T-05301
Draft Approval Date: April 28, 2006
Applicant: 839685 Ontario Inc.
Location: Hilltop Community, Ayr
Proposal: This modification recognizes the lotting of the last phase of the Hilltop, Stage 3 Subdivision. The modification proposes to develop 1.427 hectares of the entire 24,304 hectare Plan of Subdivision with 4 single detached units
Official Plan Amendment Number 28

and 16 townhouse units, as well as 0.082 hectares of park and 15 blocks which will be developed in conjunction with the adjacent lands (30T-11301) with townhouse and semi-detached units.

Regional Processing Fee: Paid May 19, 2015
Commissioner’s Approval: September 4, 2015
Came Into Effect: September 25, 2015

Township of Wellesley
Part Lot Control Exemption By-law 40/2015

Applicant: D.G. Lavigne Contracting Ltd.
Location: Gerber Road
Proposal: To permit the creation of 2 semi-detached residential units.

Regional Processing Fee: Paid September 14, 2015
Commissioner’s Approval: September 15, 2015

Area Municipal Consultation/Coordination

These planning approvals and releases, including consultations with Area Municipalities, have been completed in accordance with the Planning Act. All approvals included 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. The activities of Focus Area A: Growth Management and Prosperity.

Financial Implications: Nil.

Other Department Consultations/Concurrence: Nil.

Attachments: Nil.

Prepared By: Andrea Banks, Program Assistant

Approved By: Rob Horne, Commissioner, Planning, Development and Legislative Services
Region of Waterloo
Planning, Development and Legislative Services
Community Planning

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: October 27, 2015

File Code: T 15-40/58 KIT, Bromberg, Garry

Subject: Amendment to Regional Municipality of Waterloo Controlled Access By-Law #58-87 for Access to Regional Road #58 (Fischer-Hallman Road), City of Kitchener

Recommendation:
That the Regional Municipality of Waterloo Controlled Access By-law #58-87 be amended to include a temporary construction access on the west side of Regional Road #58 (Fischer-Hallman Road) approximately 173 metres north of Huron Road in the City of Kitchener, as described in Report No. PDL-CPL-15-53, dated October 27, 2015.

Summary:
1271395 Ontario Limited is proposing a mixed use property at 1415 Huron Road on the northwest corner of the intersection of Regional Road #58 (Fischer-Hallman Road) and Huron Road (please see Attachment 1). The site would be developed through phased site plan applications. The current site plan application for a proposed commercial/retail development on a portion of the lands has been approved in principle by the City of Kitchener. Construction is expected to start in November 2015.

A temporary construction access on the west side of Fischer-Hallman Road approximately 173 metres north of Huron Road is required to facilitate the construction of the proposed commercial/retail development (please see Attachment 2). The temporary construction access would be located at the future intersection of West Oak Trail and Fischer-Hallman Road for a period of approximately 8 months starting November 2015, and would operate with right-in, right-out only traffic movements at this intersection. Regional Council recently endorsed a northbound left turn lane on Fischer-Hallman Road at West Oak Trail to allow right-in, right-out, left-in traffic movements.
The left turn lane will be constructed at a future date. An amendment to Controlled Access By-law #58-87 is not required for a municipal street intersection with a Regional road that is Controlled Access – Prohibited. Ultimately, access to the entire property would be from Huron Road and the future West Oak Trail intersection at Fischer-Hallman Road.

City of Kitchener Planning staff and the developer support the location of the proposed temporary construction access from Fischer-Hallman Road.

Fischer-Hallman Road is designated as a Controlled Access-Prohibited Road from Regional Road #4 (Ottawa Street) to Regional Road #12 (New Dundee Road) under the Region’s Controlled Access By-Law #58-87. An amendment to this By-Law is required prior to the issuance of an Access Permit by Regional staff for the temporary construction 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 volume and speed. All requests for changes to existing accesses or for new accesses require an amendment to the By-law. Regional roads included in Schedule “B” (Controlled Access – Regulated) include all remaining arterial roads within the Regional road system. Typically, these roads are front-lotted with access available only to the Regional road or are comparatively lower volume roads.

1271395 Ontario Limited is proposing a mixed use property at 1415 Huron Road on the northwest corner of the intersection of Regional Road #58 (Fischer-Hallman Road) and Huron Road (please see Attachment 1). The site would be developed through phased site plan applications. The current site plan application for a proposed commercial/retail development on a portion of the lands has been approved in principle by the City of Kitchener. Construction is expected to start in November 2015.

A temporary construction access on the west side of Fischer-Hallman Road approximately 173 metres north of Huron Road is required to facilitate the construction of the proposed commercial/retail development (please see Attachment 2). The temporary construction access would be located at the future intersection of West Oak Trail and Fischer-Hallman Road for a period of approximately 8 months starting November 2015, and would operate with right-in, right-out only traffic movements. Regional Council recently endorsed a northbound left turn lane on Fischer-Hallman
Road at West Oak Trail to allow right-in, right-out, left-in traffic movements at this intersection. The left turn lane will be constructed at a future date. An amendment to Controlled Access By-law #58-87 is not required for a municipal street intersection with a Regional road that is Controlled Access – Prohibited. Ultimately, access to the entire property would be from Huron Road and the future West Oak Trail intersection at Fischer-Hallman Road.

City of Kitchener Planning staff and the developer support the location of the proposed temporary construction access from Fischer-Hallman Road. City of Kitchener staff has clarified that due to City of Kitchener servicing policies, a construction access cannot be granted from adjacent lands or from Huron Road.

Fischer-Hallman Road is designated as a Controlled Access-Prohibited Road from Regional Road #4 (Ottawa Street) to Regional Road #12 (New Dundee Road) under the Region’s Controlled Access By-Law #58-87. An amendment to this By-Law would be required prior to the issuance of an Access Permit by Regional staff for the temporary construction access.

Staff has confirmed that the temporary construction access would meet current standards and recommends the approval of the proposed By-law amendment.

Area Municipal Consultation/Coordination

City of Kitchener Planning staff support the location of the proposed temporary construction access from Fischer-Hallman Road.

Corporate Strategic Plan:

Managing access to the Regional Road system is integral to the development approval process and is represented in Focus Area 2: Growth Management and Prosperity: Manage growth to foster thriving and productive urban and rural communities.

Financial Implications:

The developer would be responsible for the cost to construct the temporary construction access.

Other Department Consultations/Concurrence:

Corporate Resources would be required to amend Controlled Access By-law #58-87. Upon issuance of a Regional Access Permit, Transportation Engineering would issue a Regional Work Permit to perform works within the Regional right of way on Fischer-Hallman Road.
Attachments:

Attachment 1 - Key Map showing the location of the Proposed Commercial Development

Attachment 2 - Location of The Proposed Temporary Construction Access and the proposed Amendment to Controlled Access By-law #58-87

Prepared By: Joginder Bhatia, Transportation Planner

Approved By: Rob Horne, Commissioner, Planning, Development and Legislative Services
Attachment 1

1415 Huron Road
Commercial Development

Produced by:
Planning, Development and Legislative Services
Planning Research and Analytics
500 Frederick Street, 8th Floor
Kitchener, Ontario N2G 4J3
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KEY MAP
Attachment 2
Region of Waterloo
Transportation and Environmental Services
Design and Construction

To: Chair Tom Galloway and Members of the Planning and Works Committee

Date: October 27, 2015

File Code: C04-30, 5163/5565/7332

Subject: Ottawa Street Improvements, Highway 7 Westbound Ramp to 250 Metres West of Charles Street, City of Kitchener – Approval of Project

Recommendation:

That the Regional Municipality of Waterloo take the following actions with respect to the proposed improvements on Ottawa Street (Regional Road 4) from the Highway 7 Westbound Ramp to 250 Metres West of Charles Street in the City of Kitchener:

a) approve the Recommended Design Alternative for Ottawa Street (Regional Road 4) as outlined in Report TES-DCS-15-25;

b) direct staff to file the Notice of Completion for this Class Environmental Assessment Study by means of advertisements in local newspapers and mailings to adjacent property owners, tenants and agencies, and place the Environmental Study Report on the public record for a period of 30 days; and

c) upon completion of construction, amend Traffic and Parking By-law 06-072, as amended, to add to Schedule 24, Reserved Lanes on Both Sides of Ottawa Street (Regional Road 4) from Highway 7 to Charles Street for Bicycles.

Summary:

The Region of Waterloo is planning roadway improvements on Ottawa Street from the Highway 7 Westbound Ramp to 250 metres west of Charles Street in the City of Kitchener, a total distance of approximately 1,200 metres. (Please refer to the Key Plan in Appendix “A” for the project limits.) Improvements are required on Ottawa Street to address the deteriorated condition of the roadway, the sewers and the watermain, as well as to address the lack of adequate cycling facilities. In addition to the
recommendations to correct these deficiencies, the Project Team is recommending that Ottawa Street be widened to 4 through lanes between King Street and Charles Street to provide much-needed improvements in traffic operations at these two very busy intersections.

Based on comments received at a Public Consultation Centre (PCC) and subsequent discussions directly with affected commercial property owners, the Project Team is now recommending the following Design Alternative to Regional Council for approval:

- Full reconstruction of the existing roadway;
- Widening of Ottawa Street from east of King Street to west of Charles Street;
- Turn lane improvements at Weber Street, King Street and Charles Street;
- Construction of 1.50 metre wide segregated cycling lanes on both sides of the road to provide a continuous cycling facility on Ottawa Street from the Highway 7 westbound ramp to Charles Street;
- Construction of a 3.0m wide off-road multi-use trail on the north side of Ottawa Street from Charles Street westerly to connect to the Iron Horse Trail at Nyberg Street.
- Construction of new 1.5 metre sidewalks on the south side of Ottawa Street and 1.80 metre sidewalks on the north side of Ottawa Street; and
- Replacement of the watermains, storm sewer and sanitary sewer systems and services throughout the project limits.

Please refer to Appendix 'B' for a typical cross-section of the Project Team’s Recommended Design Concept.

Construction on this project is currently scheduled to occur in 2018 in the Region’s approved 2015 10-Year Transportation Capital Program. Surface asphalt paving would occur in 2019. The Region’s Transportation Capital Program includes funds of $11,555,000 in years 2015-2019 inclusive for this project, to be funded from the Roads Rehabilitation Reserve and Development Charges Reserve Funds.

In order to comply with the Municipal Class EA requirements, staff is also recommending that Regional Council direct staff to file the Notice of Completion for this Class Environmental Assessment Study by means of advertisements in local newspapers and mailings to adjacent property owners, tenants and agencies, and place the Environmental Study Report on public record for a period of 30 days.

Letters notifying interested members of the public that Regional Planning and Works Committee will be considering the approval of the Recommended Design Concept for this project at its October 27th 2015 meeting were distributed during the week of October 13th, 2015.
Report:

1.0 Introduction

The Region of Waterloo is currently considering improvements on Ottawa Street from the Highway 7 Westbound Ramp to west of Charles Street in the City of Kitchener, a total project length of approximately 1,200 metres (Please refer to Appendix ‘A’ for a Key Plan.) Improvements are required on Ottawa Street to address the deteriorated condition of the roadway, the sewers and the watermain, as well as to address the lack of adequate cycling facilities. In addition to the recommendations to correct these deficiencies, the Project Team is recommending that Ottawa Street be widened to 4 lanes plus left turning lanes between King Street and Charles Street to provide much-needed improvements in traffic operations at these two very busy intersections.

This project was originally initiated as a Schedule “A+” project under the “Municipal Class Environmental Assessment Act” but has now changed to a Schedule “C” project with the inclusion of the proposed additional traffic lanes between King Street and Charles Street. An Environmental Study Report will be prepared to document the environmental screening that occurred as part of the project planning.

The planning of the roadway improvements is also being undertaken in accordance with the Regional Context Sensitive Corridor Design Guidelines, the Regional Transportation Mater Plan, the Regional Active Transportation Master Plan and other relevant Regional policies and practices.

The Context Sensitive Region Transportation Corridor Design Guidelines (CDG) is a planning policy document that guides the design of Regional Roads. The CDG identifies design parameters for necessary features within road allowances such as vehicular lanes, sidewalks and boulevards.

The Regional Transportation Master Plan gives direction to balance the design of reconstructed roads to meet the needs of all modes of transportation including walking, cycling, motorized vehicles and transit.

The Regional Active Transportation Master Plan is a planning policy document that identifies improvements to the Region’s walking and cycling network and guides the implementation of these facilities.

This project is being directed by a Project Team that includes staff from the Region of Waterloo and the City of Kitchener as well as former City of Kitchener Councillor Dan Glenn-Graham (until December 2014) and current City of Kitchener Councillor Sarah Marsh, as well as the Region’s consultant MTE Consultants Inc.
2.0 Existing Needs and Proposed Improvements

2.1 Additional Through Lanes Between Charles Street and King Street

Ottawa Street between King and Charles Street currently operates at a traffic “Level of Service” E for through traffic and F for left turn traffic. The Level of Service (LOS) concept is used to describe the delay at intersections and LOS can range from LOS A being the shortest delay to LOS F being the longest delay. LOS E represents the level at which the capacity of the intersection has been reached and LOS F represents the condition where traffic demand exceeds capacity and where extensive delays are experienced in the am and pm peak periods. It is the Region’s practice to consider improvements at intersections when intersections reach a LOS of D or E.

The distance between the Ottawa/King and Ottawa/Charles intersections is less than 100 metres which introduces significant constraints in terms of queuing distance for vehicles stopped at red lights. Many times during the day, traffic from one intersection overlaps with traffic operations at the adjacent intersection. Out of all intersections within the Region, the Ottawa/King and Ottawa/Charles intersections rank near the top in terms of length of delay to motorists and overall congestion. Additional through lanes on Ottawa Street will help alleviate this congestion issue. With the proposed improvements in place, the LOS at the intersections will increase to LOS C (through traffic) and D (left-turning traffic).

2.2 Deteriorated Road Condition

The pavement condition is fair to poor on most sections of Ottawa Street. In general, the deterioration is due to the age of the asphalt combined with areas of poor roadway drainage. The roadways will be fully reconstructed as part of this project.

2.3 Roadway Drainage

Ottawa Street includes a fully urbanized cross-section and drainage is handled by a storm sewer system that is deteriorated in some locations, is undersized by current standards and that includes standard in-road catchbasins. It is proposed as part of this project that a new upgraded storm sewer system be installed and that new side-inlet catch basins be included.

2.4 Cycling Needs

There are currently no designated cycling lanes on Ottawa Street; however, Ottawa Street is identified as a designated cycling route with bike lanes in the Region’s Active Transportation Master Plan and accordingly separate cycling facilities are being recommended as part of this project. A number of different types of cycling facilities were considered by the Project Team for Ottawa Street including: painted...
on-road cycling lanes, segregated cycling lanes (separated from traffic by a wide roll-over curb) and multi-use trails for pedestrian and cyclist use in the boulevards. Multi-use trails provide the greatest separation to adjacent vehicles and accordingly afford the most comfort for cyclists. However, the presence of numerous driveways on Ottawa Street precludes the use of a multi-use trail for most of the project limits due to the conflict points between drivers exiting driveways and cyclists travelling in both directions on the trail. Segregated cycling lanes separated from the adjacent traffic lane by a mountable “roll-over” curb are recommended by the Project Team as the most appropriate type of cycling facility for Ottawa Street to provide cyclist comfort and encourage more cycling.

The segregated cycling lanes recommended for this project will cost approximately $275,000 more to construct than painted on-road cycling lanes. There will also be additional ongoing maintenance costs (sweeping, snow clearing) for the segregated cycling lanes compared to painted on-road cycling lanes.

From Charles Street westerly, the Project Team determined that a segregated cycling lane adjacent to the new ION track may be uncomfortable for cyclists. Accordingly, in this section a 3.0 metre wide multi-use trail is proposed in the north boulevard (opposite side to the ION track) which will connect to the existing Iron Horse trail.

Bike boxes will be installed at signalized intersections in accordance with the Region’s bike box installation criteria where both the approach leg and left turn receiving leg have a designated cycling facility.

2.5 Pedestrian Needs

There is currently a 1.5 metre deteriorated sidewalk along both sides of Ottawa Street. All of the sidewalk is in poor condition and accordingly, new sidewalk is recommended as part of this project to improve the existing pedestrian connections. The proposed new sidewalks (and multi-use trail west of Charles Street) are in keeping with the priorities identified in the Region of Waterloo and City of Kitchener Pedestrian Charters which support the installation of sidewalks and multi-use trails within the public right-of-way and encourage people to walk for travel, exercise and recreation. Ottawa Street is identified as a “Neighborhood Connector – Avenue” in the Region of Waterloo Corridor Design Guidelines which also indicates that sidewalks and multi-use trails are a valuable component of a pedestrian-friendly right-of-way. Wider 1.8m sidewalks are proposed on Ottawa Street’s north side which will help provide a direct and more pedestrian-friendly link between the ION stations on Charles Street and the Kitchener Memorial Auditorium to the east.
2.6 Transit Needs

Grand River Transit (GRT) buses currently operate on Ottawa Street both with regular stops and proposed new iXpress stop locations. GRT staff has requested that some existing bus stops be upgraded with new bus shelters along the corridor.

2.7 Sewer and Watermain Needs

Sanitary sewers and watermain in this corridor are under the jurisdiction of the City of Kitchener and City staff has determined that this infrastructure is deteriorated to the point where it is in need of complete replacement. The existing sanitary sewer and watermain will therefore both be replaced throughout the entire project limits. This replacement work will include replacement of mainline sewers and watermain as well as the local service connections to property line.

3.0 Public Consultation

3.1 Public Consultation Centre (PCC) - November 24th, 2014

Based on the project needs, the Project Team developed a preferred design for the Ottawa Street improvements, which was presented to the public on November 24th, 2014 at a Public Consultation Centre (PCC) held at the Kitchener Church of God, 533 Weber Street East. Notices were placed in the local newspaper advertising the PCC, signboards were erected on site in advance of the PCC and notices were hand delivered to area residents, property owners and businesses directly adjacent to the road improvement limits. A plan showing the Preferred Design Concept was on display and Project Team representatives were present to answer questions and receive feedback.

Approximately twenty-nine (29) members of the public attended the PCC. Five (5) comment sheets/emails were received which are included in Appendix ‘C’. The main issues expressed by the public as a result of the PCC are discussed in the following sections.

3.2 Access/Construction Issues at 120 Ottawa Street (Eastwood Square Plaza)

The property manager for Eastwood Square Plaza attended the PCC and expressed concerns regarding access to the plaza during construction activities and also expressed the importance of continuous water service without disruption to the businesses in the plaza.

Project Team Response:

Access strategies will include access to the Eastwood Square Plaza at all times and these were discussed with the property manager. Staging will be designed such that at least one access will be provided to the plaza at all times during construction activities. Concerns about loss of water service were addressed
through proposed placement of temporary above ground watermains and services during construction to avoid the need for water service disruptions.

3.3 Property Acquisition Concerns from King Street to west of Charles Street

A number of PCC attendees expressed concerns to staff about the proposed land acquisition on the north side of Ottawa Street from King Street to west of Charles Street. Concerns were expressed about the two full property buyouts necessary to implement the widening to 4 lanes between King Street and Charles Street. In addition, concerns were noted that the significant partial taking shown at the PCC at 50 Ottawa Street (“Access Storage” plaza) in the NW corner at Charles Street would result in a substantial permanent loss of parking, loss of the Ottawa Street access to the plaza as well as the potential loss of business during prolonged construction activities with the current ION construction in 2015/2016 and with this project in 2018.

Project Team Response:

There are 4 property acquisitions from King Street to west of Charles Street that involve significant impacts on affected properties, including two full property buyouts (“Corner Pub” and “Ray of Hope” lands). There is also a portion of property required from the owner of 14 Ottawa Street which is located between these two full buy-outs. In addition, a significant acquisition is also required within the current parking area of the “Access Storage” plaza (50 Ottawa Street) in the north-west corner of Charles Street and Ottawa Street; this acquisition is required to transition from 4 lanes at the Charles Street intersection back to 2 lanes west of the intersection.

Staff have had meetings with a number of these affected property owners and their tenants to review the proposed impacts on their property and to explain the process that is used to provide compensation for the proposed acquisitions.

In particular, a number of meetings have been held with representatives of the 50 Ottawa Street property to review various iterations to the design in order to mitigate and minimize the impacts on the use of the property at 50 Ottawa Street. Subsequent to the PCC and as part of the deliberations with 50 Ottawa Street, staff re-visited the proposed lane configuration and determined that the intersection could operate satisfactorily without separate left turn lanes to Charles Street. This re-design significantly lessened the impacts on the parking area for 50 Ottawa Street. The plan in Appendix ‘D’ shows the revised impact on the parking area of 50 Ottawa Street.

Staff have also engaged the services of a local planning consultant to work with the 50 Ottawa Street property owner and tenants and their planning consultant to review options for re-configuring the parking spaces as well as to review site access and site circulation. The property owners and tenants have indicated that they
understand the need for the improvements and the property acquisition and are willing to continue working with staff towards implementation of the improvements.

3.4 Active Transportation Advisory Committee Input

The Project Team has also presented the project plans to the Region’s Active Transportation Advisory Committee for review and comment with respect to the proposed pedestrian and cycling facilities. The Committee has indicated that it fully endorses the Team’s proposed design for active transportation facilities on this project.

4.0 Other Property Acquisitions

In addition to the four (4) property acquisitions noted in Section 3.3, Appendix ‘D’ also includes plans showing all of the other required property acquisitions within the project limits. Property acquisitions are required from an additional forty (40) adjacent property owners as part of this project. These other property acquisitions involve narrow strips (less than 1 metre) along the property’s frontage to accommodate the proposed widening for cycling lanes and wider sidewalks.

5.0 Recommended Design Alternative

Based on all the public consultation and technical considerations, the Project Team is now recommending a final Design Alternative to Regional Council for approval. The final Recommended Design Alternative includes the following overall improvements:

- Full reconstruction of the existing roadway;
- Widening of Ottawa Street from east of King Street to west of Charles Street;
- Turn lane improvements at Weber Street, King Street and Charles Street:
- Ottawa Street at Weber Street – increased left turn lane storage on all four approaches to the intersection;
- Ottawa Street at King Street – increased left turn lane storage on all four approaches to the intersection; geometric improvements to the northbound right turn lane from King Street to Ottawa Street;
- Ottawa Street at Charles Street – elimination of both Ottawa Street left turn lanes to Charles Street to provide added storage for the eastbound left turn lane to King Street.
- Construction of 1.50 metre wide segregated cycling lanes on both sides of the road to provide a continuous cycling facility on Ottawa Street from the Highway 7 westbound ramp to Charles Street;
- Construction of a 3.0m wide off-road multi-use trail on the north side of Ottawa Street from Charles Street westerly to connect to the Iron Horse Trail at Nyberg Street.

- Construction of new 1.5 metre sidewalks on the south side of Ottawa Street and 1.80 metre sidewalks on the north side of Ottawa Street;

- Installation of Detectable Warning Plates to facilitate accessibility for the visually impaired at all sidewalk ramp and road crossing locations;

- Replacement of the storm and sanitary sewer systems and services throughout the project limits;

- Replacement of the watermain and services throughout the project limits;

- Improvements to the existing Grand River Transit (GRT) stops and bus shelters and the introduction of new iXpress stop locations in addition to the regular GRT stops; and

- Provision of 1.0 metre wide grassed boulevards with landscaping plantings where space permits. (Landscape planting typically occurs 1 year after construction has been completed.)

Appendix ‘B’ includes a typical cross-section of the Project Team’s Recommended Design Concept.

6.0 Project Cost

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

Region of Waterloo

(Road improvements, new sidewalk, trunk watermain and share of storm sewers) $11,555,000

City of Kitchener

(Sidewalk replacements, sanitary sewer, distribution watermain and share of storm sewers) $1,640,000

Total Estimated Project Cost $13,195,000

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. Letters notifying interested members of the public that Regional Planning and
Works Committee will be considering the approval of the Recommended Design Concept for this project at its October 27\textsuperscript{th} 2015 meeting were distributed during the week of October 13th, 2015.

8.0 Project Schedule

Subject to project approval at the November 4\textsuperscript{th} 2015 Regional Council meeting, the acquisition of the required property would commence in late 2015 to secure the property in advance of construction of the Ottawa Street road improvements in 2018.

It would have been ideal to complete the recommended construction at Ottawa Street and Charles Street as part of the ION construction in 2015 and 2016 and this option was explored. It was determined that there was insufficient time to complete the Class EA and the subsequent property acquisitions to permit construction in 2015/2016. Therefore the required widening work is planned as soon as possible following ION construction.

Corporate Strategic Plan:

This project is consistent with the development of Strategic Focus Area 2 (Growth Management and Prosperity). This project specifically addresses Strategic Objective 2.2:

- Develop, optimize and maintain infrastructure to meet current and projected needs.

It is also consistent with the development of Strategic Focus Area 3 (Sustainable Transportation), specifically Strategic Objective 3.2:

- Develop, promote and integrate active forms of transportation (cycling and walking).

Financial Implications:

The Region’s 2015 Ten-year Transportation Capital Program includes funding of $11,555,000 in the years 2015-2019 for the Ottawa Street Improvements project, to be funded from the Roads Rehabilitation Capital Reserve Fund ($4,539,000, 39%) and the Development Charges Reserve Fund ($7,016,000, 61%).

Other Department Consultations/Concurrence:

Nil
Attachments

Appendix A    Key Plan
Appendix B    Recommended Design Cross-Section
Appendix C    Public Comments from Public Consultation Centre
Appendix D    Proposed Property Acquisition Plans

Prepared By:  Michael Henderson, Project Manager, Design & Construction Division
Approved By:  Thomas Schmidt, Commissioner, Transportation and Environmental Services
Appendix A

Key Plan

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**REGIONAL ROAD No. 4**

**HIGHWAY 7/8 (WEST BOUND RAMP) TO 250m WEST OF CHARLES STREET**

**CITY OF KITCHENER**
Appendix B

Recommended Design Cross-Section

TYPICAL CROSS SECTION
SEGREGATED BICYCLE LANES
Appendix C

Public Comments

Name Comment

(No name provided) Put reflectors along edge of bike lane to add lane I.D.

**Staff Response:** the proposed segregated bike lanes are separated from traffic by a wide gutter which will delineate the edge of the bike lane.

Gerald and Beverly Smith As per our meeting Monday December 8, 2014

1. The poor condition, and thus elimination/replacement with a new item, of the hydro pole in front of our property.

   **Staff Response:** KW Hydro will be replacing all poles determined to be in poor condition.

2. That any boulevard constructed on the Ottawa St. side of our address be ‘hard’, not grass. We already maintain a sizable item on our McKenzie border

   **Staff Response:** The Region’s practice is to hard-surface boulevard areas that are less than 1 metre in width; on this project, this will include the north boulevard between McKenzie Avenue and East Avenue and the south boulevard between Weber Street and Hwy 7.

3. That any snow removal problems exacerbated as a result of the construction be addressed suitably by the Regional Municipality of Waterloo. Note: this concern refers specifically to the proposed expansion of the sidewalk and the construction of a bicycle lane on our Ottawa St. border.

   **Staff Response:** Snow is to be managed within the available snow storage area in the curb/gutter and the boulevard. Any snow that can’t be managed in this area would be removed by the municipality upon request.

Dr. Greg Bidinost – Rockway Chiropractic clinic

Overall I like the plans. My major concern is regarding snow removal at Ottawa & Charles. My business is on the SE corner. Will snow be
removed from the road & sidewalk or will it simply be pushed onto my property?

There will be 3 lanes of traffic, 1 cycle lane, the LRT track & the new sidewalk all adjacent to the sidewalk on my property running along the side of my building. If the snow is pushed to the right from the road & bike lane onto the LRT line then in turn onto the sidewalk, I will never be capable of moving it or finding a place to put it without considerable effort & expense. Snow removal is always a concern for my property.

Thank you for your consideration.

**Staff Response:** Snow is to be managed within the available snow storage area in the curb/gutter and the boulevard. Any snow that can’t be managed in this area would be removed by the municipality upon request.

David Barkin c/o Canlight -impact on existing “Eastwood ___” sign when sidewalk straightened

-will connections to mains (sanitary & storm) be lowered to create better fall

Businesses (food) cannot operate without water – can efforts be made to ensure no interruption!

-retailer will require temporary signage to redirect customers

Need guarantees that access to property will be uninterrupted

Would like to receive updates on progress (planning)

Please send pdf of map that was on display tonight

**Staff Response:** All gravity mainline sewers will be lowered to the greatest extent possible to accommodate the current shallow services at the Eastwood Square Plaza. Temporary water service will be established prior to existing water service being shut off so any disruptions in service will be minimized to only short durations for connections. All signage and access issues will be coordinated with the Plaza in order to minimize disruptions to short duration only with at least one access being open and operational at all times. All attendees to the PCC and all abutting owners/tenants are being kept apprised of the project progress.

Jason Malfara Thank you for the public meeting today and the opportunity to provide
input. I own property at 206 Ottawa St. N. adjacent to the Kitchener Auditorium entrance.

First of all, I think the proposed corridor enhancements will make Ottawa St much safer from a traffic, cycling and pedestrian perspective. Further it will improve linkages to the ION stop and future bus routes (e.g. proposed iXpress route via Ottawa). The overall plan is a great improvement.

What I think should be improved upon further is consideration for how future bus routes will function in connecting people to the Auditorium. I see the Auditorium’s importance as a Regional destination only increasing (it really is the only venue of its kind in K-W). Further, the sea of parking lots there lend themselves well to future expansion and other development opportunities in the long run that will attract more transit users. For this reason, I would suggest that the Region explore the possibility of some sort of lay-by using the large boulevards on either side of the Auditorium entrance property as an opportunity for this. This would limit traffic delays and provide an opportunity for busses from other routes to link together. An example that comes to mind is the King St. iXpress lay-by in Uptown Waterloo in front of the public square.

Another comment that I have is that, currently, there is a bus stop very close to my driveway. At times the transit users standing at the stop create a visual barrier to oncoming traffic. At a minimum, the stop should be moved away from my driveway and my neighbour’s at 198 Ottawa St. N. and closer to the Auditorium entrance if possible.

Finally, in speaking with one of you consultants, Jason, he noted that I could request a copy of the aerial photography showing the proposed alignment. I would appreciate a copy to get an understanding of the impacts to my property since widening is proposed over it.
Appendix D

Property Acquisitions
Region of Waterloo
Transportation and Environmental Services
Design and Construction

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: October 27, 2015
File Code: T04-20, 5110
Subject: Update on Victoria Street Centre Median, Edna Street to Bruce Street, City of Kitchener

Recommendation:

For Information.

Summary:

For more than 10 years, the section of Victoria Street between Edna Street and Bruce Street has consistently been reported as one of the Region’s worst collision locations. In March 2013 Regional Council approved the Class Environmental Assessment (EA) study for operational and safety improvements on Victoria Street between Edna Street and Bruce Street, in the City of Kitchener. The study limits are indicated on the Key Plan in Appendix “A”. When the Ministry of Transportation (MTO) constructs New Highway 7 between Kitchener and Guelph the highway ramp configurations to the Conestoga Expressway in the Victoria Street area will change, which will alter traffic operations on Victoria Street between Edna Street and Bruce Street. It is expected that with this change in traffic operations, the current high collision rates on this section of Victoria Street will be reduced.

The approved road improvements on Victoria Street include widening of the roadway to five lanes for a centre two way left turn lane. As an interim step, a narrow center concrete median will be installed to reduce high mid-block collision rates until New Highway 7 is completed. Back to back left turn lanes will be provided at Bruce Street and Edna Street. At the time of Regional Council’s approval for the improvements on Victoria Street, the schedule for New Highway 7 construction was not known and Region staff were further directed to report back to Council once the MTO’s schedule for
the reconstruction of the Victoria Street Bridge was known and prior to tendering construction of the road improvements on Victoria Street.

New Highway 7 construction by the MTO has now begun with construction of road improvements on Shirley Avenue at Wellington Street continuing into 2016. MTO staff has recently indicated that replacement of the Victoria Street Bridge will commence in 2017. The work currently underway and the Victoria Street bridge replacement currently scheduled for 2017 construction will not, on their own, alter traffic patterns or collision rates on Victoria Street. Completion of the remaining New Highway 7 work that will alter Victoria Street traffic patterns, including ramp reconfigurations at the Conestoga Expressway, is still not scheduled and is not expected to commence until sometime beyond 2019.

The Region’s Victoria Street improvements will be included with MTO’s contract for replacement of the Victoria Street Bridge in 2017. The interim centre concrete median will eliminate left turn access and exits for 9 properties and businesses and will be removed once New Highway 7 is completed. Design of the Victoria Street improvements provides access alternatives to the left in/left out movements to businesses and properties, while the interim centre concrete median is in place. Access to the businesses and properties along Victoria Street between Edna Street and Bruce Street will be maintained at all times during construction. Completion of utility relocations along Victoria Street is planned for 2016 in advance of the road improvements and the bridge replacement in 2017.

Region staff will await further information from the MTO with respect to the New Highway 7 construction schedule for the remaining work. Staff will monitor New Highway 7 construction progress and traffic operations on Victoria Street for the earliest opportunity to remove the interim centre median.

The capital cost for the Victoria Street road improvements is estimated to be approximately $1.495 million, including for the cost for installing and removing the centre concrete median. The costs associated with installing the centre concrete median and removing it at a future date when the New Highway 7 is completed are estimated at approximately $120,000.

Report:

1. Background

For more than 10 years, the section of Victoria Street between Edna Street and Bruce Street has consistently been reported as one of the Region’s worst collision locations. This section of Victoria Street experiences unique collision patterns resulting from congested peak hour operations, extensive intersection queuing, high turning volumes in and out of commercial driveways and tight spacing of commercial driveway locations.
A key contributor to existing congestion in this corridor is traffic attempting to access the Conestoga Expressway ramps on Edna Street and Bruce Street. During peak times, the queuing at the ramp locations often reaches Victoria Street which, in turn, results in queuing on Victoria Street at the Edna Street and Bruce Street intersections.

2. **New Highway 7**

When the Ministry of Transportation (MTO) constructs New Highway 7 between Kitchener and Guelph it will attract most of the commuters that are presently using Victoria Street as a route between the two cities. It will also significantly change the highway ramp configuration in the vicinity of Victoria Street. Primary access to both the Conestoga Expressway and the new highway will shift from the Edna Street and Bruce Street ramps to new ramps that will be constructed at Wellington Street and Shirley Avenue. A copy of the preliminary layout plan for New Highway 7 at the Conestoga Expressway is included in Appendix “C”.

Once New Highway 7 is constructed and operational, the change in highway access and traffic volumes will significantly alter traffic operations on Victoria Street between Edna Street and Bruce Street. It is expected that with the change in traffic operations associated with New Highway 7, the collision rates on this section of Victoria Street will be reduced.

3. **Victoria Street Road Improvements**

In response to the operational and safety concerns along Victoria Street between Edna Street and Bruce Street the Region undertook a Class Environmental Assessment (Class EA) study to consider road improvements to address the high mid-block collision rates. The study limits are indicated on the Key Plan in Appendix “A”.

In March 2013 Regional Council approved the Class Environmental Assessment (Class EA) study and recommendations for road improvements along the Victoria Street Corridor between Edna Street and Bruce Street in the City of Kitchener. Cross-sections for the approved Design Concept are included in Appendix “B”. The approved ultimate design once New Highway 7 is completed includes:

- Widening of Victoria Street between Edna Street and the Conestoga Expressway bridge to accommodate a centre two way left turn lane;
- Minor additional widening at the Edna and Bruce Street intersections to accommodate U-turns;
- Rehabilitation of the existing Victoria Street pavement structure; and
- Infill sidewalk along the south side of Victoria Street between Edna Street and the Expressway Bridge.
It is expected that this section of Victoria Street will continue to experience high collision rates until New Highway 7 is completed. As an interim condition to mitigate collisions until New Highway 7 is completed, the design also includes:

- Construction of a narrow concrete median between Edna Street and Bruce Street;
- Back to back Left turn lanes at Bruce Street and Edna Street; and
- Removal of the temporary narrow concrete median and converting the centre median to a two way left turn lane following completion of the Ministry of Transportation’s New Highway 7 project.

At the time of Regional Council’s approval of the Class EA and design alternative, the schedule for New Highway 7 construction, including the Victoria Street bridge replacement, was not known. Region staff were directed to report back to Council once the Ministry of Transportation’s schedule for replacement of the Victoria Street Bridge is known and prior to commencing the procurement process for construction of the road improvements on Victoria Street.

4. MTO Schedule

New Highway 7 construction by the MTO has begun with widening of the Guelph Street overpass and construction of road improvements on Shirley Avenue at Wellington Street continuing into 2016. MTO staff have recently indicated that the Victoria Street bridge replacement will commence in 2017. Victoria Street will be closed at the bridge during construction and traffic will be detoured via Frederick Street and Wellington Street/Shirley Avenue. The work currently underway and the Victoria Street bridge replacement currently scheduled for 2017 construction will not, on their own, alter traffic patterns or collision rates on Victoria Street. The Victoria Street improvements including the interim concrete centre median will be included in the 2017 MTO bridge contract. MTO’s schedule and construction timing for completion of the remainder of the Highway 7 work that will alter Victoria Street traffic patterns, including ramp reconfigurations and relocations at the Conestoga Expressway, is still not scheduled and is not expected to commence until sometime beyond 2019.

5. Business and Property Owners Concerns

Construction of a narrow interim centre median extending between Edna Street and Bruce Street will eliminate left in and left out movements from driveways to 9 properties and businesses. As part of the Class EA study, business and property owners were consulted by means of workshops, meetings and Council presentations. The main issues raised by business and property owners relate to access restrictions to their businesses when a concrete centre median is implemented as an interim measure and concerns about lengthy disruptions to businesses during the construction of the
proposed improvements on Victoria Street and MTO’s construction of New Highway 7.

It is recognized that the temporary centre concrete median will require route changes for customers and delivery vehicles wanting to turn left in or out of commercial entrances along this section of Victoria Street in the short term. These effects would be mitigated through design elements at the Edna Street and Bruce Street intersections to allow U-turns for cars and small trucks and by the availability of the relatively short alternate route via the Edna/Frederick/Bruce block for larger delivery trucks or for those uncomfortable making a U-turn. Turning movement needs at individual driveway locations are being addressed as part of the detailed design. Several measures being considered to improve the existing access configurations include larger entrance radii, semi-mountable portions of the boulevard, and semi-mountable portions of the centre median.

Completing the Region and MTO works under one contract will create greater efficiencies in cost and minimize the duration of the overall construction as well as any traffic interruptions and detours for this section of Victoria Street.

Most recently, on September 9, 2015, Region staff met with a group of business and property owners to discuss the timing of construction for the road improvements on Victoria Street and MTO’s New Highway 7. At this meeting the businesses and property owners expressed their continued concern about business impacts resulting from the installation of the interim centre median on Victoria Street (See Appendix “D”). The Victoria Street business owners further requested that Region staff:

- Re-evaluate the temporary need for the centre median in consideration of traffic changes resulting from MTO’s start of construction for New Highway 7 with the realignment of Shirley Avenue at Wellington Street in 2016 and the replacement of the Victoria Street bridge in 2017;
- Confirm that should the centre median be installed, that it not be installed until the Victoria Street bridge replacement is completed and functional, to maintain uninterrupted access during construction; and
- Confirm that should the centre median be installed, Region staff will continue to monitor the situation with the objective to remove the centre median at the earliest possible date and proceed with the ultimate solution for a two-way left turn lane.

It is acknowledged that the access restrictions resulting from the interim centre median are undesirable to property and business owners in the short term. The current schedule for New Highway 7 includes improvements on Shirley Avenue at Wellington Street continuing in 2016 to support traffic detours during the Victoria Street bridge replacement work planned to start in 2017. Although this work is part of MTO’s New
Highway 7 construction, traffic operations on Victoria Street between Edna Street and Bruce Street aren’t expected to significantly change until the Conestoga Expressway ramp reconfigurations/relocations are constructed and the New Highway 7 is completed and operational. Therefore, the interim centre median is still required. Region staff will continue to monitor MTO construction progress and traffic operations on Victoria Street to determine the earliest opportunity to remove the interim centre median with conversion to a two-way centre left turn lane.

In addition, Region staff will continue to work with MTO on the detailed design and construction of the Victoria Street improvements to coordinate the construction of the interim centre median and ensure access to the businesses and properties along Victoria Street between Edna Street and Bruce Street are maintained at all times during construction. This includes installing the centre median after the Victoria Street Bridge is reopened to traffic to maintain access from Edna Street.

Business and property owners along this section of Victoria Street have been notified of this report to Regional Planning and Works Committee.

6. **Project Cost**

The capital cost for the Victoria Street road improvements is estimated to be $1.495 million.

The $1.495 million estimate includes rehabilitation of the Victoria Street pavement structure, complete replacement of the traffic signal infrastructure at the Edna Street and Bruce Street intersections (due to age and condition), widening of Victoria Street to accommodate the ultimate Two Way Left Turn Lane, construction of the interim centre concrete median, relocation of storm system infrastructure, relocation of hydro poles, sidewalk reconstruction and infill sidewalk and other minor roadway improvements required to complete the project. The costs associated with installing the centre concrete median and removing it at a future date when the New Highway 7 is completed are estimated at approximately $120,000.

**Corporate Strategic Plan:**

This project is consistent with the development of Strategic Focus Area 2 (Growth Management and Prosperity) in developing, optimizing and maintaining infrastructure to meet current and projected needs. It is also consistent with Strategic Focus Area 3 (Sustainable Transportation) in developing, promoting and integrating active forms of transportation (walking) and optimizing existing road capacity to safely manage traffic.

**Financial Implications:**

The 2015 Transportation Capital Program includes $1.495 million for the design and construction of this project to be funded from the Region Development Charges.
Reserve Fund.

**Other Department Consultations/Concurrence:**

Nil.

**Attachments**

Appendix A – Key Plan

Appendix B – Approved Design Concept (Interim Centre Median with Future TWLTL)

Appendix C – Preliminary Layout Plan – New Highway 7 at the Conestoga Expressway

Appendix D – Letter from MHBC (representing several Business and Property Owners), September 25, 2015

**Prepared By:** William Gilbert, Senior Project Manager, Transportation Expansion

**Approved By:** Thomas Schmidt, Commissioner, Transportation and Environmental Services
Appendix A

Key Plan of Study Area
Victoria Street from Edna Street to Bruce Street
Class Environmental Assessment
Appendix “B”

Alternative Design Concept 2A (Recommended Design Concept)
Narrow Centre Concrete Median In The Short Term Including Widening For Conversion Of
The Median Into A Future Two Way Left Turn Lane
Appendix “C”

Preliminary Layout Plan

New Highway 7 At The Conestoga Expressway
Appendix “D”

September 25, 2015

William Gilbert, P.Eng.
Senior Project Manager
Design and Construction
Transportation and Environmental Services
Regional Municipality of Waterloo
150 Frederick Street
Kitchener, Ontario N2G 4J3

Dear Mr. Gilbert,

RE: Victoria Street Improvements – Follow up from Landowner Meeting
OUR FILE Y5198

Thank you for meeting on September 9, 2015 to provide an update on the proposed Victoria Street improvements and to discuss the various landowner interests. Based on the discussion at the meeting, there continues to be significant landowner concern associated with the business impacts resulting from the proposed installation of a centre median on Victoria Street (between Bruce Street and Edna Street).

At the meeting there were a number of requests made by the landowners for your consideration, including:

1/ The Region re-evaluate the temporary need for the centre median following the re-instatement of the Victoria Bridge before a decision to install the centre median, taking into account the Wellington Street/Shirley Avenue improvements will be in place. It is our understanding these improvements were not considered as part of the analysis completed at the time the decision to install the centre median was considered.

2/ Confirmation that should the centre median be installed, that it not be installed until the Victoria Street bridge is completed and functional.

3/ Confirmation that should the median be installed, the Region will continue to monitor the situation with the objective to determine the potential to remove the centre median at the earliest possible date and proceed with the ultimate solution for a two-way left turn lane (TWLTL).

With regard to the phasing of construction and the Victoria Street improvements, we reviewed the Regional staff report prepared in January 2013 (Report E-13-010) and request that you consider the comments within the report that read as follows:

200 540 BINGEMANS CENTRE DRIVE / KITCHENER / ONTARIO / N2B 3X9 / T 519 576 3650 / F 519 576 0121 / WWW.MHBCPLAN.COM
"If the Ministry of Transportation (MTO) is able to provide a construction schedule for New Highway 7 project, prior to the Region's Victoria Street project proceeding, that confirms the Victoria Street bridge replacement is scheduled early in the MTO's Highway project (i.e., 2015/2016), staff would recommend that the Region construct Victoria Street to the ultimate TWLTL configuration in conjunction with the MTO project rather than constructing the centre median first."

It is understood that MTO has established a timeline for the Victoria Street bridge replacement that would see the work begin in 2015 for the replacement of the Victoria Street structure (as identified in the MTO presentation to the Regional Planning and Works Committee on May 26, 2015). On this basis, we ask that Regional staff consider implementing the ultimate solution for the Victoria Street road improvements. The report further suggests that if the centre median were installed as an interim that it would be removed during new Highway 7 construction (at the time that the Victoria Street bridge is replaced) and the road retrofitted and converted to the TWLTL configuration. It would appear there is opportunity to move directly to implement the TWLTL in the first instance.

Please include these comments as part of the report that is being prepared for the Planning and Works Committee meeting. As well, please provide a copy of the report to us for review and circulation to the landowners, prior to the meeting.

Feel free to call with any questions.

Yours truly,

MHBC

[Signature]

David Aston, M.Sc., MCIP, RPP
Partner

C. Jerry White, Dave Sloan, Pat Knechtel, Andrea Becker, Bruno Pezzot, Ian Rustledge, Paul Britton
Region of Waterloo
Transportation and Environmental Services
Design and Construction

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: October 27, 2015  File Code: C04-20, 05590, 05459, 07309, 05726
Subject: Fountain Street Improvements from Blair Road to Preston Parkway, City of Cambridge

Recommendation:

That the Regional Municipality of Waterloo take the following actions with respect to the proposed improvements to Fountain Street from Blair Road to Preston Parkway, in the City of Cambridge:

a) Approve the proposed improvements to Fountain Street from Blair Road to Preston Parkway as presented at the June 16, 2015 Public Consultation Centre and as described in Report TES-DCS-15-29; and

b) Amend the Traffic and Parking By-law 06-072, as amended, upon completion of construction to:

   i) Add to Schedule 16 - Lane Designation, eastbound left turn, eastbound through on Fountain Street (Regional Road 17) at Limerick Road;

   ii) Add to Schedule 16 - Lane Designation, eastbound left turn, eastbound through on Fountain Street (Regional Road 17) at Preston Parkway;

   iii) Change Schedule 16 – Speed limit, 60 km/h, from Blair Road to 200 metres west of Preston Parkway; and

   iv) Remove from Schedule 16 – Two-way passing zone, from 350 metres east of Blair Road to 50 metres west of Limerick Road.
Summary:

The Region of Waterloo is considering improvements to Fountain Street from Blair Road to Preston Parkway in the City of Cambridge, including the Fountain Street Bridge over the Grand River. The limits of the project are shown on the Key Plan included in Appendix “A” to this report. The project is being guided by a Project Team consisting of staff from the Region of Waterloo and the City of Cambridge. The Region has retained the consulting engineering firm of Parsons to assist with the planning, engineering design and contract administration of this project.

Reconstruction of Fountain Street from Blair Road to Preston Parkway is required in order to address deteriorated pavement conditions and to provide facilities for pedestrians and cyclists. Replacement of the existing bridge “superstructure” (girders, deck, sidewalks and barriers) is required in order to address the deteriorated condition of the existing bridge. Widening of the road beyond the existing two lanes to increase capacity is not required based on long-term forecast traffic volumes.

The planning for this project is being undertaken as a Schedule “A+” project in accordance with the requirements of the Municipal Class Environmental Assessment.

Plans for the proposed improvements were presented at a Public Consultation Centre held on June 16, 2015. Verbal comments were generally supportive of the proposed improvements and no written Comment Sheets were received from those who attended the Public Consultation Centre.

The Project Team is now recommending that Regional Council approve the proposed improvements to Fountain Street as presented at the June 16, 2015 Public Consultation Centre, described as follows:

- Reconstruction of the existing roadway from Blair Road to Preston Parkway;
- Construction of a new designated eastbound left-turn lane on Fountain Street at Limerick Road;
- Construction of a new designated eastbound left-turn lane on Fountain Street at Preston Parkway;
- Construction of new pedestrian refuge islands on Fountain Street at Limerick Road and Preston Parkway;
- Construction of a new 3.0 metre wide asphalt boulevard multi-use trail on the north side of Fountain Street from Blair Road to Preston Parkway and a new 3.0 metre wide asphalt boulevard multi-use trail on the south side of Fountain Street from Blair Road to approximately 150 metres east of Preston Parkway;
- Construction of a new sidewalk on the south side of Fountain Street from approximately 150 metres east of Preston Parkway to meet the existing sidewalk terminus 420 metres west of Shantz Hill Road;
- Replacement of the deteriorated “superstructure” (girders, deck, sidewalks and railings) of the existing Fountain Street / Grand River Bridge with a new superstructure designed to accommodate the additional width required to support the multi-use trails;
- Reduction of the posted speed from 70 km/h to 60 km/h on Fountain Street from Blair Road to 200 metres west of Preston Parkway following construction; and
- Elimination of the existing two-way passing zone on Fountain Street from 350 metres east of Blair Road to 50 metres west of Limerick Road following construction.

Please refer to Appendix “B” for drawings showing the proposed improvements to Fountain Street.

Demolition and reconstruction of the bridge superstructure (girders, deck, sidewalks and barriers) will require that the bridge be fully closed to vehicular traffic for a period of up to 24 months; however, the bridge is expected to be open to pedestrians and cyclists at most times during construction. Vehicular traffic will be detoured via Fountain Street, Blair Road, Highway 401, King Street and Shantz Hill Road. Please refer to Appendix “C” for a map showing the proposed detour route.

Construction is currently scheduled to be completed in 2017 and 2018.

The Region’s approved 2015 10-Year Transportation Capital Program includes funding of $13,970,000 for this project in years 2015 to 2020 inclusive to be funded from the Roads Rehabilitation Reserve Fund and the Development Charge Reserve Fund.

Letters advising of the recommendations contained in this Report TES-DCS-15-29 were mailed on October 9, 2015 to area residents, businesses and property owners abutting the Fountain Street project limits, and also to those who attended the June 16, 2015 Public Consultation Centre.

Traffic and Parking By-law 06-072 will require amendment, upon completion of construction of the proposed improvements to Fountain Street to reflect the new eastbound designated left turn lanes on Fountain Street at Limerick Road and Preston Parkway, reduction of the posted speed limit on Fountain Street to 60 km/h from Blair Road to 200 metres west of Preston Parkway and elimination of the passing zone on Fountain Street from 350 metres east of Blair Road to 50 metres west of Limerick Road.
1. Background

The Region of Waterloo is considering improvements to Fountain Street from Blair Road to Preston Parkway in the City of Cambridge, including the Fountain Street Bridge over the Grand River. The limits of the project are shown on the Key Plan included in Appendix “A” to this report. The planning and design of the Fountain Street improvements project is being directed by a Project Team consisting of staff from the Region of Waterloo and the City of Cambridge. The Region has retained the consulting engineering firm of Parsons to assist with the planning, engineering design, and contract administration of this project.

This section of Fountain Street is currently constructed as a two-lane rural roadway with paved shoulders, grassed ditches and no sidewalks. The current posted speed limit on Fountain Street is 70 km/h from Blair Road to 200 metres west of Preston Parkway, and 50 km/h from 200 metres west of Preston Parkway to Shantz Hill Road. There is an existing passing zone on Fountain Street from 350 metres east of Blair Road to 50 metres west of Limerick Road.

The proposed improvements to Fountain Street from Blair Road to Preston Parkway are intended to address the deteriorated condition of this section of roadway and the deteriorated condition of the “superstructure” (girders, deck, sidewalks and railings) of the existing Grand River bridge. Additionally, area development north of Fountain Street is generating increased traffic volumes entering Limerick Road and Preston Parkway from Fountain Street, resulting in the need for new designated left-turn lanes on Fountain Street at both Limerick Road and Preston Parkway. The proposed improvements are also intended to provide improved facilities for cyclists and pedestrians. There are many trails leading to the Blair and Preston neighbourhoods; however, there is a discontinuity in the trail network between Blair and Preston.

2. Project Planning Framework

This project is classified as a Schedule A+ undertaking in accordance with the planning process outlined in the Municipal Class Environmental Assessment and is therefore pre-approved to proceed to construction, subject to public notification in advance of construction.

Planning of the roadway improvements is being undertaken in accordance with the Regional Official Plan, Regional Transportation Master Plan, Regional Context Sensitive Corridor Design Guidelines, Regional Active Transportation Master Plan and other relevant Regional policies and practices.

The Regional Transportation Master Plan considered projected traffic volumes on Fountain Street from Blair Road to Shantz Hill Road. The projected traffic volumes
account for increased demand due to area growth and improvements to nearby alternate routes and expansion of the transit system. Based on these projected traffic volumes, two through lanes on this section of Fountain Street will be adequate to convey traffic over a long-term planning horizon.

The Context Sensitive Region Transportation Corridor Design Guidelines designates Fountain Street as a “Neighbourhood Connector – Avenue” from Blair Road to Limerick Drive and as a “Residential Connector” from Limerick Drive to Preston Parkway. Accordingly, Fountain Street is identified for enhanced pedestrian and cycling facilities.

The Regional Active Transportation Master Plan identifies Fountain Street as a critical link in the area cycling and pedestrian network and recommends multi-use trails for the section of Fountain Street from Blair Road to Preston Parkway. Enhanced pedestrian and cycling facilities on Fountain Street as part of this project would link up with existing and planned pedestrian and cycling infrastructure on Fountain Street at Blair Road (including the Riverside Trail and Trans Canada Trail), Limerick Road, Preston Parkway, Shantz Hill Road and King Street.

3. Public Consultation

Plans for the proposed improvements and traffic staging were presented at a Public Consultation Centre held on June 16, 2015. Notices for this meeting were mailed out to property and business owners within the project limits. Notices were also placed in the local newspaper and on road-side signs. Staff from the Region of Waterloo, the City of Cambridge and the consultant was available at the Public Consultation Centre to discuss the proposed improvements. Region of Waterloo Councillors Helen Jowett and Karl Kieffer and City of Cambridge Councillor Donna Reid were also in attendance.

Approximately twenty-two (22) local property owners, residents and business representatives attended the Public Consultation Centre. Verbal comments received by the Project Team at the Public Consultation Centre were generally supportive of the proposed improvements. No written Comment Sheets were submitted to the Region for consideration by the Project Team. One business owner who farms the property abutting the north side of Fountain Street indicated verbally that he might encounter challenges in transporting large farm equipment to the property when the bridge is closed. Region staff will work with this business owner to assist in accommodating him during construction. One e-mail comment was received from a resident who noted that the detour would require a comprehensive signage plan and this is acknowledged by staff. Additionally, one senior citizen indicated verbally by phone that they would not feel comfortable driving on Highway 401 and would seek to use alternate routes.

Staff worked with the Region’s Active Transportation Advisory Committee (ATAC) to refine the proposed pedestrian and cycling facilities for the project.
Staff worked with the Region’s Heritage Preservation Action Committee (HPAC) to ensure that the proposed road and bridge improvements would be complementary to the adjacent Blair Heritage District.

Staff also presented plans for the proposed improvements at a meeting of the City of Cambridge Municipal Heritage Advisory Committee (MHAC) on May 21, 2015. This meeting was also attended by Cambridge Mayor Doug Craig and Cambridge Councillor Donna Reid. MHAC members indicated that the Region’s efforts to create an aesthetically pleasing project that will provide enhanced facilities for pedestrians and cyclists were impressive and appreciated.

4. Proposed Improvements

The Project Team is now recommending that Council approve the proposed improvements to Fountain Street as presented at the June 16, 2015 Public Consultation Centre and as described as follows:

- Reconstruction of the existing roadway from Blair Road to Preston Parkway;
- Construction of a new designated eastbound left-turn lane on Fountain Street at Limerick Road;
- Construction of a new designated eastbound left-turn lane on Fountain Street at Preston Parkway;
- Construction of new pedestrian refuge islands on Fountain Street at Limerick Road and Preston Parkway;
- Construction of a new 3.0 metre wide asphalt boulevard multi-use trail on the north side of Fountain Street from Blair Road to Preston Parkway and a new 3.0 metre wide asphalt boulevard multi-use trail on the south side of Fountain Street from Blair Road to approximately 150 metres east of Preston Parkway;
- Construction of a new sidewalk on the south side of Fountain Street from approximately 150 metres east of Preston Parkway to meet the existing sidewalk terminus 420 metres west of Shantz Hill Road;
- Replacement of the deteriorated “superstructure” (girders, deck, sidewalks and railings) of the existing Fountain Street / Grand River Bridge with a new superstructure designed to accommodate the additional width required to support the multi-use trails;
- Reduction of the posted speed from 70 km/h to 60 km/h on Fountain Street from Blair Road to 200 metres west of Preston Parkway following construction; and
- Elimination of the existing two-way passing zone on Fountain Street from 350 metres east of Blair Road to 50 metres west of Limerick Road following construction.
Please refer to Appendix “B” for drawings showing the proposed improvements to Fountain Street. Construction of the new sidewalk on the south side of Fountain Street, from approximately 150 metres east of Preston Parkway, will require acquisition of approximately three (3) small parcels of land from adjacent residential property owners.

5. Traffic Staging During Construction

Demolition and reconstruction of the bridge girders and deck will require that the bridge be fully closed to vehicular traffic for a period of up to 24 months; however, the bridge is expected to be open to pedestrians and cyclists at most times during construction. During the bridge reconstruction, vehicular traffic will be detoured via Fountain Street, Blair Road, Highway 401, King Street and Shantz Hill Road. Please refer to Appendix “C” for a map showing the detour route. The City of Cambridge Fire Department, Waterloo Regional Police and Ambulance Services, Grand River Transit and area School Board bus services have all been contacted through the project planning process. All of these services have indicated that they are developing plans to re-route vehicles during the bridge closure and generally have no concerns with the project.

From Limerick Road to Shantz Hill Road, traffic will generally be maintained in both directions during construction. Periodic lane restrictions may be in place to allow for certain construction activities. At certain critical times, it may be necessary to employ short-duration full road closures to allow for completion of key project components. In such instances, the duration of full closures will be kept to a minimum, detours will be provided and appropriate signage posted. Local traffic will be maintained at all times during construction.

6. Estimated Project Cost

The estimated project cost including bridge works, roadworks, multi-use trails, sidewalks, engineering and associated costs is $13,910,000.

7. Next Steps

Subject to approval of the proposed improvements by Council, preparation of the detailed design for the proposed works is scheduled to be completed in 2016. Construction is currently scheduled to be undertaken in 2017 and 2018.

Letters advising of the recommendations contained in this Report TES-DCS-15-29 were mailed on October 9, 2015 to area residents, businesses and property owners abutting the Fountain Street project limits, and also to those who attended the June 16, 2015 Public Consultation Centre.
Corporate Strategic Plan:

This project supports Strategic Focus Area 2 (Growth Management and Prosperity) and specifically Strategic Objective 2.2 to Develop, optimize and maintain infrastructure to meet current and projected needs. This project also supports Focus Area 3 (Sustainable Transportation), specifically Strategic Objective 3.2 to develop, promote and integrate active forms of transportation (cycling and walking).

Financial Implications:

The Region’s approved 2015 10-Year Transportation Capital Program includes funding of $13,910,000 for this project in years 2015 to 2020 inclusive, to be funded from the Roads Rehabilitation Reserve Fund ($13,100,000; or 94.2%) and the Development Charge Reserve Fund ($810,000; or 5.8%). The estimate and budget will be further refined during the detailed design phase of this project.

Other Department Consultations/Concurrence:

The Council and Administrative Services Division of the Planning, Development and Legislative Services Department will be required to prepare the amending By-law to reflect the formal left-turn lane designations on Fountain Street at Limerick Road and Preston Parkway, reduction of the posted speed from 70 km/h to 60 km/h on Fountain Street from Blair Road to 200 metres west of Preston Parkway following construction, and elimination of the existing two-way passing zone on Fountain Street from 350 metres east of Blair Road to 50 metres west of Limerick Road following construction.

Attachments:

Appendix A  Project Key Plan
Appendix B  Drawings of the Proposed Improvements
Appendix C  Proposed Detour Route

Prepared by:  John Stephenson, Senior Project Manager

Approved by: Thomas Schmidt, Commissioner, Transportation and Environmental Services
Appendix A

Key Plan Showing Fountain Street from Blair Road to Preston Parkway
Appendix B

Recommended Design Concept

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TYPICAL CROSS SECTION

RECOMMENDED DESIGN CONCEPT
FOUNTAIN STREET RECONSTRUCTION
Appendix B (continued)

Recommended Design Concept
Appendix B (continued)

Recommended Design Concept

RECOMMENDED DESIGN CONCEPT
FOUNTAIN STREET RECONSTRUCTION
Appendix B (continued)

Recommended Design Concept
Appendix B (continued)

Recommended Design Concept
Appendix B (continued)

Recommended Design Concept
Appendix C

Detour Route
Region of Waterloo
Transportation and Environmental Services
Transportation

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: October 27, 2015  File Code: T01-20/GEN/TWP
Subject: Review of Posted Speed Limits Near Schools

Recommendation:

That the Regional Municipality of Waterloo approve the implementation of proven physical measures and safety countermeasures where applicable and feasible to reduce operating speeds and enhance safety on Regional roads adjacent to schools as outlined in Report TES-TRP-15-03.2, dated October 27, 2015.

Summary:

At the Regional Council meeting held on April 22, 2015, Regional Council requested that staff review options to reduce travel speeds, if required, based on the speed surveys and other reviews, on Regional roads near school zones and report back on the findings in October 2015.

Staff reviewed motorist speed and collisions at 47 locations along all Regional roads that had an abutting school property within the Region of Waterloo.

Staff has concluded that speeding is not a systemic issue and is not contributing to pedestrian or cyclist collisions near schools. Staff has reconfirmed that the majority of pedestrian collisions continue to occur at traffic signals. In light of this review, staff is not recommending reducing speed limits in school zones at this time but is recommending physical measures to encourage drivers to lower their speed and to implement proven safety countermeasures to enhance school zone safety where applicable and feasible as part of all transportation capital projects.
Report:

1.0 Background

On May 12, 2014, the Township of Wilmot passed a resolution requesting the Region of Waterloo consider lowering the posted speed limit to 40 km/h along Regional roads fronting all schools and libraries in the Township of Wilmot. Regional staff undertook speed surveys and collision reviews at 8 locations in the Township of Wilmot, developed options and provided a recommendation to address those locations in Wilmot Township.

Based on the speed and collision reviews, and the Region’s past experience with the lowering of posted speed limits below average operating speeds, staff recommended (as detailed in Report TES-TRP-15-03) that the Region maintain existing speed limits in school zones on Regional roads. Staff’s recommendation was based on the following observations and conclusions as detailed in Report TES-TRP-15-03:

- The average speed of motorists is at or near the posted speed;
- Based on Region practice, the existing posted speed limits are appropriate at these locations;
- Drivers are already lowering their speed near schools to 8 km/h below the posted speed limits during times when children are arriving or leaving school;
- There are no pedestrian or motor vehicle collision problems at these locations; and
- In the absence of physical changes to the road itself, arbitrarily lowering posted speeds will have no appreciable effect on actual driver speeds.

At the April 14, 2015 Planning and Works Committee, Committee members heard concerns from a resident of New Dundee who requested the lowering of posted speed limits on Regional roads fronting schools. Following a discussion on various options to address this issue, Regional Planning and Works Committee did not approve Report TES-TRP-15-03 and directed staff to bring back a recommendation to Regional Council on April 22, 2015 that included a more comprehensive review of operating speeds near all schools on Regional roads, and possible options that could lower operating speeds including such measures as physical changes to the roads as well as new types of signs and education for drivers and students.

At the Regional Council meeting held on April 22, 2015, Regional Council requested that staff review options to reduce travel speeds, if required, based on the speed surveys and other reviews, on Regional roads near school zones and report back on findings in October 2015.
Staff have since reviewed the average speed and the 5-year collision history (2010 to 2014) involving pedestrians and cyclists along all Regional roads that have an abutting school property.

2.0 Function of Regional Roads

As per the Region’s Official Plan, Regional roads are to provide safe, direct, accessible and multi-modal transportation links for moving people and goods. Regional roads are also intended to accommodate large commercial trucks in order to move goods.

3.0 Current Regional Practice for Setting Speed Limits

Current Regional practice is to set speed limits at or about the average travel speed of traffic because this is most likely to produce a uniformly moving traffic stream. Traffic flowing at a uniform speed generally results in fewer collisions. With uniform speed, drivers are less impatient, pass less often, and are less likely to tailgate, which reduces both head-on and rear-end collisions. The posting of an appropriate speed limit also simplifies the work of enforcement officers because most of the traffic is moving at or near the posted speed. With an appropriate speed limit, blatant speeders are easily spotted, safe drivers are not penalized, and police officers are not asked to enforce and defend unrealistic and arbitrary speed limits.

4.0 Existing Operating Speeds in School Zones

Regional staff conducted traffic speed surveys along all Regional roads where a school property (elementary, secondary and private schools) abuts a Regional road. It was identified that there are 47 schools with property that abuts a Regional road within the Region of Waterloo (13 public elementary schools, 27 public secondary schools and 7 private elementary schools).

The speed surveys were conducted to measure average traffic speeds over a 24-hour period. Speed data was collected in May, 2015 and where required follow up speed surveys were conducted in September, 2015. Appendix A summarizes the locations assessed and average measured speeds.

Staff assessed the average operating speed of motorists based on the posted speed limit. The following Table summarizes the average operating speeds observed for various posted speed limits.
Table 1 – Average Observed Operating Speeds

<table>
<thead>
<tr>
<th>Posted Speed Limit</th>
<th>Number of School Zones</th>
<th>Average Speed Observed</th>
<th>Average Speed Observed During School Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 km/h</td>
<td>3</td>
<td>48 km/h</td>
<td>45 km/h</td>
</tr>
<tr>
<td>40 km/h when flashing</td>
<td>2</td>
<td>50 km/h</td>
<td>45 km/h</td>
</tr>
<tr>
<td>50 km/h</td>
<td>31</td>
<td>52 km/h</td>
<td>50 km/h</td>
</tr>
<tr>
<td>60 km/h</td>
<td>8</td>
<td>58 km/h</td>
<td>56 km/h</td>
</tr>
<tr>
<td>70 km/h</td>
<td>2</td>
<td>71 km/h</td>
<td>70 km/h</td>
</tr>
<tr>
<td>80 km/h</td>
<td>2</td>
<td>71 km/h</td>
<td>68 km/h</td>
</tr>
</tbody>
</table>

Based on the above analysis, motorists are largely adhering to the posted speed limit except when the posted speed limit is set at 40 km/h.

5.0 Collision History in School Zones

Staff conducted a review of the 5-year collision history (2010-2014) involving both pedestrians and cyclists along Regional roads in the vicinity of all schools within the Region that abut a Regional road. Please refer to Appendix C for a summary of pedestrian and cyclist collisions for the five-year period between 2010 and 2014.

5.1 Pedestrian Collisions

Staff’s review shows that there were a total of 29 pedestrian collisions between 2010 and 2014 within the 47 sections of Regional roads that abut school property.

The review of pedestrian collisions in school zones has determined that the majority of collisions (59% or 17 of 29) involve adult pedestrians rather than school-aged children. The review also suggests the majority of collisions (20 out of 29) involving pedestrians occur at traffic signals. This assessment reaffirms that traffic control signals should not be considered a safety device for pedestrians. These collisions primarily occur because of the driver workload associated with turning manoeuvres. Elementary school children represent 10% (3 of 29) of all collisions while secondary school children were involved in 31% (9 of 29) of all collisions. Of the 12 collisions involving school-aged children 3 occurred outside of typical school hours. Table 2 below summarizes pedestrian
collisions.

Table 2 – Tabulation of Pedestrian Collisions by Location

<table>
<thead>
<tr>
<th>Pedestrian Collision Location</th>
<th>Traffic Signal</th>
<th>Midblock</th>
<th>Stop-Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary-Age</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Secondary Age</td>
<td>7</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Adult</td>
<td>11</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>7</td>
<td>2</td>
</tr>
</tbody>
</table>

Staff’s review shows that the majority (75% or 9 of 12) of collisions involving school-aged children occur at signalized intersections. Of note, four of the seven collisions involving high school students at a traffic signal occurred at the Franklin Boulevard/Saginaw Parkway intersection.

Of the 29 total collisions involving students and adults, Waterloo Regional Police Services indicated that no collisions were attributed to high speed.

5.2 Cycling Collisions

The 5-year collision history (2010 to 2014) at the 47 locations shows that there were 19 collisions involving cyclists. Table 3 provides a summary of cycling collisions by location.

Table 3 – Tabulation of Cycling Collisions by Location

<table>
<thead>
<tr>
<th>Cycling Collision Location</th>
<th>Traffic Signal</th>
<th>Midblock</th>
<th>Stop-Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary-Age</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Secondary Age</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Adult</td>
<td>10</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

Adult cyclists (aged 18 and up) represent 84% (16 of 19) of the total cycling collisions. Elementary aged cyclists represent 11% (2 of 19) of collisions and secondary aged cyclists represent 5% (1 of 19) of the total. Similar to pedestrian collisions, the majority
of cycling collisions (58%) occurred at a signalized intersection where only 16% (3) occurred within a midblock section where there is school property abutting a Regional road. Waterloo Regional Police Services did not attribute high speed as a contributing factor in any of the collisions. Of the three school-aged cyclist collisions, two collisions occurred within normal school hours of operation.

Similar to pedestrians, the majority of collisions occur at traffic signals when motorists are turning.

6.0 Posted Speed and Pedestrian Collisions

As provided in Report TES-TRP-15-03.2, an assessment of pedestrian collisions in various speed limit zones (40 km/h to 80 km/h) over 287 km of Regional roads during the last 5-years does not conclude that roadways with lower posted speed limits have fewer pedestrian collisions. It does however suggest that median islands have a positive benefit to minimize collisions involving pedestrians. Please refer to Appendix D for a graph that illustrates this data.

7.0 Potential Measures to Reduce Average Operating Speed

Without the presence of active speed enforcement, current research clearly shows that reducing the average operating speed of motorists can only be accomplished through physical changes to the roadway to influence motorist behaviour. In general, physical changes to the road environment that reduce driver comfort generally causes drivers to slow down. The following table (Table 4) provides a summary of the physical measures to reduce average operating speeds, their effectiveness and potential impacts/risks.
Table 4 – Effectiveness of Physical Features to Reduce Operating Speeds

<table>
<thead>
<tr>
<th>Measure</th>
<th>Effectiveness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narrower lanes</td>
<td></td>
<td>May impact cycling safety if no cycling facilities are present</td>
</tr>
<tr>
<td>Narrower shoulders</td>
<td></td>
<td>May impact pedestrians or cycling safety if no other facilities present</td>
</tr>
<tr>
<td>Adding sidewalks</td>
<td></td>
<td>Increased pedestrian activity which may have a positive affect on driver speeds</td>
</tr>
<tr>
<td>Urbanizing the corridor (adding curbs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adding landscaping adjacent to the roadway (boulevard trees)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installing obstructions such as raised median islands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adding roundabouts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installing pedestrian refuge islands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buildings close to the roadway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existence of Driveways</td>
<td></td>
<td>May negatively impact pedestrians and cyclist safety due to increased conflict points</td>
</tr>
<tr>
<td>On-street parking</td>
<td></td>
<td>May negatively impact pedestrian and cycling safety</td>
</tr>
<tr>
<td>Speed bumps</td>
<td></td>
<td>Not an appropriate device for function of a Regional road</td>
</tr>
<tr>
<td>Chicanes</td>
<td></td>
<td>Not an appropriate device for function of a Regional road</td>
</tr>
<tr>
<td>Raised intersections</td>
<td></td>
<td>Not an appropriate device for function of a Regional road</td>
</tr>
</tbody>
</table>
Each year staff receives numerous concerns regarding the operating speed of motorists. The following non-physical measures, shown in Table 5, are frequently requested to reduce the average operating speed of motorists not only near schools but throughout the Region.

Table 5 – Effectiveness of Frequently Requested Measures to Reduce Operating Speeds

<table>
<thead>
<tr>
<th>Measure</th>
<th>Effectiveness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enforcement</td>
<td>Positive</td>
<td>Only effective while present.</td>
</tr>
<tr>
<td>Lower speed limits</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>Flashing 40km/h</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>Stop control</td>
<td>Positive</td>
<td>Studies show that unwarranted stop control increase average speed within midblock sections.</td>
</tr>
<tr>
<td>Traffic signals</td>
<td>Positive</td>
<td>Studies have shown increases in operating speed approaching traffic signals. Collisions typically increase following traffic signal installation.</td>
</tr>
<tr>
<td>Variable messaging radar devices</td>
<td>Positive</td>
<td>Studies show no positive effect to operating speeds. Collisions have shown to increase following installation.</td>
</tr>
</tbody>
</table>

Staff collaborates with Waterloo Regional Police Services on an ongoing basis to identify problematic sections of Regional road where speeding is considered problematic and or where speed may be contributing to collisions. Waterloo Regional Police Services do not have the staff time or resources to enforce these locations on a full-time basis.

8.0 Potential Measures to Improve Pedestrian and Cycling Safety

Staff continue to review measures to reduce both pedestrian and cycling collisions. These measures are shown in Table 6 and Table 7 below along with their effectiveness.
### Table 6 – Effectiveness of Measures to Improve Pedestrian Safety

<table>
<thead>
<tr>
<th>Measure</th>
<th>Effectiveness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ladder crosswalks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pedestrian countdown signals</td>
<td></td>
<td>Device displays available time left to complete crossing</td>
</tr>
<tr>
<td>Leading pedestrian intervals</td>
<td></td>
<td>Allows pedestrians to start crossing for a period of time before motorists are allowed to proceed</td>
</tr>
<tr>
<td>Raised intersections</td>
<td></td>
<td>Not an appropriate device to maintain function of a Regional road</td>
</tr>
<tr>
<td>Medians</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pedestrian refuge island</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crossing guards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offset crosswalks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pedestrian Traffic Control Signals (PS)</td>
<td></td>
<td>A controlled crossing for pedestrians however likely increase in motor vehicle collisions</td>
</tr>
<tr>
<td>Roundabout Installation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illumination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signs warning of pedestrians and cyclists</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 7 – Effectiveness of Measures to Improve Cycling Safety

<table>
<thead>
<tr>
<th>Measure</th>
<th>Effectiveness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserved Cycling Lanes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bike boxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protected Cycling phases</td>
<td></td>
<td>Protected movement at signalized intersections for cyclists</td>
</tr>
</tbody>
</table>


9.0 Proposed Legislation

9.1 Automated Speed Enforcement

Proposed Bill 99, Safer Roads and Safer Communities Act, was introduced in May 2015 as a private members bill. Bill 99 attempts to provide the Provincial Minister and municipal councils the ability to legislate the use of safety cameras in construction zones and community safety zones. It also includes legislation that a highway or a part of a highway may be designated as a community safety zone if the highway is adjacent to land on which a school, schoolyard, daycare, seniors’ residence, community centre or playground is located.

Safety cameras would operate similar to red light cameras that are already in use but would monitor operating speeds rather than red light running. Should Bill 99 pass, it would allow Regional Council the ability to legislate school zones as community safety zones in which a safety camera could be installed within the zone.

A study in Sweden, where more than 1100 cameras have been installed, has documented that speed limit compliance improved from 50% to 80% in general and 95% at camera sites. Studies in Charlotte, North Carolina have shown a 16% reduction in total collisions and as much as 63% reduction in single-motor-vehicle collisions.

9.2 Default 40 km/h Posted Speed Limits

Earlier this year, the Ontario Transportation Minister announced a comprehensive review on the merits of reducing the default 50 km/h posted speed limit within urban communities to 40 km/h across Ontario. It is staff’s understanding that 80% of the public do not support the default-speed reduction and that the majority of road authorities support speed reduction in general, but do not support simply reducing posted speed limits. Some municipalities such as Toronto have adopted practices of lowering posted speed limits, however Toronto at this time has limited this practice to low volume, low speed roadways only and not included higher volume / arterial type roadways.

10.0 Staff Recommendations

Upon review of the speed surveys and collision data analysed on Regional roads where school property abuts a Regional road staff has concluded that there is not a significant safety problem related to motorist speed. Staff has also researched and studied the impacts of arbitrary speed reduction initiatives such as lowering posted speed limits and has concluded that these initiatives have little to no impact on reducing driver speeds. This research was also recently confirmed again by the City of Kitchener through its pilot study lowering speed limits in 10 school zones as previously discussed in Report TES-TRP-15-03. Therefore staff is recommending that the existing posted speed limits be maintained on Regional roads that abut school property at this time. The research
and the Region’s past experience clearly shows that arbitrarily lowering speed limits in the absence of any physical changes to the driving environment will have little to no effect on actual driver behaviour. While artificially lowering posted speed limits may create a perception of improved safety, the lack of change in driver behaviour will not result in any actual improvement in safety.

Staff is also recommending that the Region’s Transportation Capital Program be enhanced such that for every Regional road project that includes a school zone, staff will endeavour to reduce operating speeds with the use of physical measures, that have a positive effect listed earlier, where applicable and feasible. Overall, the data suggests that safety countermeasure treatments for intersections are more likely to succeed in reducing pedestrian and cyclist collisions in school zones rather than speed reduction initiatives. Staff will therefore also endeavour to introduce as many proven pedestrian and cyclist countermeasures listed earlier as practically possible. For example, the use of medians and pedestrian refuge islands continue to prove to be one of the most effective countermeasures to reduce pedestrian collisions.

And further, staff strongly supports Bill 99, Safer Roads and Safer Communities Act, and its ability to allow municipal councils to legislate the use of safety cameras along roadways adjacent to land on which a school, schoolyard, daycare, seniors’ residence, community centre or playground is located. More importantly, evidence suggests that the use of automated speed enforcement cameras are very effective in getting drivers to comply with posted speed limits. It is staff’s opinion, based on research in Sweden, that these devices would be a very effective strategy to reduce motorist speed in school zones and as such will request the province to pursue the approval of the proposed legislation. If legislation passes, staff would support a pilot study of automated speed enforcement in select school zones and depending on the success of a pilot study would expand the automated speed enforcement program accordingly.

Corporate Strategic Plan:

This report addresses the Region’s goal to optimize existing road capacity to safely manage traffic throughout Waterloo Region (Strategic Objective 3.3).

Financial Implications:

The additional cost to incorporate physical measures and to install pedestrian and cyclist safety countermeasures will be included as part of the budget of individual projects in the Transportation Capital Program.

Other Department Consultations/Concurrence:

Nil
Attachments

Appendix A – Summary of Speed Surveys by Location

Appendix B – Average Travel Speeds of Motorists During Typical School Arrival and Departure Times

Appendix C – Five-year Summary of Pedestrian and Cyclist Collisions by Location

Appendix D – Pedestrian Collisions vs. Posted Speed Limit

Prepared By: Mike Jones, Supervisor Traffic Engineering

Approved By: Thomas Schmidt, Commissioner, Transportation and Environmental Services
## Summary of Speed Surveys by Location

<table>
<thead>
<tr>
<th>School Name</th>
<th>Municipality</th>
<th>Type</th>
<th>Abutting Property</th>
<th>Abutting Regional Road</th>
<th>Total Vehicles Observed</th>
<th>Posted Speed (km/h)</th>
<th>Average Speed (km/h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.R. Kaufman Public School</td>
<td>Kitchener</td>
<td>Elementary</td>
<td>Side</td>
<td>Westmount Rd</td>
<td>23339</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Bridgeport Public School</td>
<td>Kitchener</td>
<td>Elementary</td>
<td>Front</td>
<td>Bridge St</td>
<td>13751</td>
<td>50</td>
<td>46</td>
</tr>
<tr>
<td>Cambridge Christian School</td>
<td>Cambridge</td>
<td>Elementary</td>
<td>Front</td>
<td>Myers Rd</td>
<td>11383</td>
<td>40 when flashing</td>
<td>50</td>
</tr>
<tr>
<td>Conestogo Public School</td>
<td>Woolwich</td>
<td>Elementary</td>
<td>Front</td>
<td>Sawmill Rd</td>
<td>9104</td>
<td>40</td>
<td>43</td>
</tr>
<tr>
<td>Country side Christian School</td>
<td>Wellesley</td>
<td>Elementary</td>
<td>Front</td>
<td>Hergott Rd</td>
<td>2980</td>
<td>80</td>
<td>76</td>
</tr>
<tr>
<td>Courtland Avenue Public School</td>
<td>Kitchener</td>
<td>Elementary</td>
<td>Front</td>
<td>Courtland Ave</td>
<td>13784</td>
<td>50</td>
<td>48</td>
</tr>
<tr>
<td>Eastwood Collegiate Institute</td>
<td>Kitchener</td>
<td>Secondary</td>
<td>Side</td>
<td>Weber St</td>
<td>17244</td>
<td>50</td>
<td>48</td>
</tr>
<tr>
<td>Ecole Elementaire Catholique Mere</td>
<td>Waterloo</td>
<td>Elementary</td>
<td>Side</td>
<td>University Ave</td>
<td>20978</td>
<td>50</td>
<td>56</td>
</tr>
<tr>
<td>Elisabeth Bruyere</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecole Elementaire L'Harmonie</td>
<td>Waterloo</td>
<td>Elementary</td>
<td>Front</td>
<td>Bridgeport Rd</td>
<td>13831</td>
<td>50</td>
<td>56</td>
</tr>
<tr>
<td>Ecole Secondaire Catholique Pere-</td>
<td>Cambridge</td>
<td>Secondary</td>
<td>Front</td>
<td>Maple Grove Rd</td>
<td>20971</td>
<td>70</td>
<td>67</td>
</tr>
<tr>
<td>Rene-De-Galinee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elmira District S.S.</td>
<td>Woolwich</td>
<td>Secondary</td>
<td>Side</td>
<td>Arthur St</td>
<td>13209</td>
<td>50</td>
<td>46</td>
</tr>
<tr>
<td>Forest Glen P.S.</td>
<td>Wilmot</td>
<td>Elementary</td>
<td>Front</td>
<td>Water St</td>
<td>7192</td>
<td>50</td>
<td>53</td>
</tr>
<tr>
<td>Forest Heights Collegiate</td>
<td>Kitchener</td>
<td>Secondary</td>
<td>Side</td>
<td>Fischer Hallman Rd</td>
<td>27834</td>
<td>50</td>
<td>57</td>
</tr>
<tr>
<td>Forest Hill Public School</td>
<td>Kitchener</td>
<td>Elementary</td>
<td>Front</td>
<td>Westmount Rd</td>
<td>21959</td>
<td>50</td>
<td>53</td>
</tr>
<tr>
<td>Foundation Christian School</td>
<td>Woolwich</td>
<td>Elementary</td>
<td>Front</td>
<td>Katherine St</td>
<td>3457</td>
<td>50</td>
<td>55</td>
</tr>
<tr>
<td>Galt Collegiate Institute</td>
<td>Cambridge</td>
<td>Secondary</td>
<td>Front</td>
<td>Water St</td>
<td>29597</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Grandview P.S. (New Hamburg)</td>
<td>Wilmot</td>
<td>Elementary</td>
<td>Front</td>
<td>Huron St</td>
<td>3171</td>
<td>50</td>
<td>49</td>
</tr>
<tr>
<td>Holy Family</td>
<td>Wilmot</td>
<td>Elementary</td>
<td>Front</td>
<td>Huron St</td>
<td>6706</td>
<td>50</td>
<td>44</td>
</tr>
<tr>
<td>Holy Spirit Catholic School</td>
<td>Cambridge</td>
<td>Elementary</td>
<td>Side</td>
<td>Myers Rd</td>
<td>4591</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Howard Robertson Public School*</td>
<td>Kitchener</td>
<td>Elementary</td>
<td>Side</td>
<td>Fairway Rd</td>
<td>21171</td>
<td>50</td>
<td>52</td>
</tr>
<tr>
<td>Laurentian Hills Christian School</td>
<td>Kitchener</td>
<td>Elementary</td>
<td>Side</td>
<td>Westmount Rd</td>
<td>16743</td>
<td>50</td>
<td>54</td>
</tr>
<tr>
<td>Laurentian Public School</td>
<td>Kitchener</td>
<td>Elementary</td>
<td>Front</td>
<td>Westmount Rd</td>
<td>16743</td>
<td>50</td>
<td>54</td>
</tr>
<tr>
<td>Manchester Public School</td>
<td>Cambridge</td>
<td>Elementary</td>
<td>Side</td>
<td>Dundas St</td>
<td>18614</td>
<td>40</td>
<td>51</td>
</tr>
<tr>
<td>Moffat Creek Public School</td>
<td>Cambridge</td>
<td>Elementary</td>
<td>Front</td>
<td>Myers Rd</td>
<td>3382</td>
<td>50</td>
<td>53</td>
</tr>
</tbody>
</table>
## Speed Survey Results (Cont’d)

<table>
<thead>
<tr>
<th>School Name</th>
<th>Municipality</th>
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## Average Travel Speeds of Motorists During Typical School Arrival and Departure Times

### Average Speed Results - Student Arrival and Departure
8:00 a.m. to 9:30 a.m. and 2:00 p.m. to 4:00 p.m.

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## Average Speed Results - Student Arrival and Departure

8:00 a.m. to 9:30 a.m. and 2:00 p.m. to 4:00 p.m. (Cont'd)

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## Five-year Summary of Pedestrian Collisions by Location

### 2010 to 2014 Five-year Pedestrian and Cycling Collision History

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## 2010 to 2014 Five-year Pedestrian and Cycling Collision History (Cont'd)

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<th>Abutting Regional Road</th>
<th>Pedestrian Collisions</th>
<th>Pedestrian Age</th>
<th>Cycling Collisions</th>
<th>Cyclist Age</th>
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<td>Front</td>
<td>Shantz Station Rd</td>
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<td>Westmount Rd</td>
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<tr>
<td>Sandhills Public School</td>
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<td>St. Agatha</td>
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## 2010 to 2014 Five-year Pedestrian and Cycling Collision History (Cont’d)

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<th>Type</th>
<th>Abutting Property</th>
<th>Abutting Regional Road</th>
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<th>Pedestrian Age</th>
<th>Cycling Collisions</th>
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<td>Wellesley</td>
<td>Elementary</td>
<td>Front</td>
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<td>St. John's - Kilmarnock School</td>
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<td>Shantz Station Rd</td>
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<tr>
<td>The Kitchener-Waterloo Bilingual School</td>
<td>Waterloo</td>
<td>Elementary</td>
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<td>Waterloo-Oxford D.S.S.</td>
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</table>
Pedestrian Collisions vs. Posted Speed Limit

![Graph showing the relationship between pedestrian collisions and posted speed limits. The graph indicates a decrease in collisions as speed limits increase, with distinct lines for 'No Median', 'With Median', and 'All Locations'.]
Region of Waterloo

Transportation and Environmental Services

Water Services

To: Chair Tom Galloway and Members of the Planning and Works Committee

Date: October 27, 2015  File Code: E14-01

Subject: Cogeneration at the Region’s Wastewater Treatment Plants

Recommendations:

That the Regional Municipality of Waterloo:

a) Endorse the plan for implementation of Cogeneration at Galt, Kitchener and Waterloo Wastewater Treatment Plants according to report TES-WAS-15-33 dated October 17, 2015;

b) Approve the approach for awarding the Renewable Energy Approval and Preliminary Design of the project for Cogeneration at the Region’s Wastewater Treatment Plants, and upon successful completion of this phase of the project, extend the consulting contract to also complete the Detailed Design and Construction Administration with the same Consultant in order to accelerate the implementation of this project.

Summary:

The Biosolids Master Plan completed in 2011 recommended that Combined Heat Power (CHP)/Cogeneration be installed at the Region’s three largest WWTPs (Galt, Kitchener and Waterloo). CHP/Cogeneration uses biogas produced in the treatment of biosolids for production of electrical energy, recovers waste heat from the cogeneration process, and significantly reduces Green House Gas (GHG) emissions by offsetting electrical energy and heating requirements at the WWTPs.

The Ontario Ministry of Energy is currently offering financial incentives to large electricity users in the Province of Ontario for implementing energy efficient upgrades.
and behind-the-meter generation projects, such as biogas CHP/Cogeneration. These incentives are available between 2015 and 2020, and will cover a maximum of 40 percent of the project capital cost. For eligibility, the power generation facility must be commercially operational before December 31, 2020.

Due to the tight schedule for completion of these facilities, Regional staff recommend that Regional Council approve a streamlined approach to accelerate the implementation of this project, where the same Consultant will be used for all phases of the project. This approach is in line with the Region’s Purchasing By-Law (By-Law Number 04-093), Part VII – Purchase By Negotiation, Section 21.(1).(g), which estates that the Chief Purchasing Officer may acquire goods and services by negotiation when the extension of an existing or previous contract would prove more cost effective or beneficial for the Region.

The approved 2015 Wastewater Ten Year Capital Program includes $25.8 million between 2018 and 2024 for the implementation of CHP/Cogeneration at the Region’s WWTPs. It is expected that engineering costs for this project be approximately $3 million. In the upcoming 2016 Wastewater Ten Year Capital Program, these funds will be advanced to allow implementation of the CHP/Cogeneration at the Galt, Kitchener and Waterloo WWTPs before December 31, 2020.

Report:

Background Wastewater

The Region operates 13 Wastewater Treatment Plants (WWTP). Wastewater treatment at these plants separates the liquid stream from the solid material. The liquid stream is treated to remove bacteria and nutrients (ammonia and phosphorous) before treated wastewater (effluent) is safely discharged into the river. The solid material is further treated to create an organic conditioned substance called ‘Biosolids.’ Treatment of the solid material at the Region’s largest plants also produces methane gas (biogas), which currently powers boilers for heating the treatment of the solid material during colder periods of the year. The excess biogas is flared to the atmosphere.

The Biosolids Master Plan completed in 2011 recommended that Combined Heat Power (CHP)/Cogeneration be installed the Region’s three largest WWTPs (Galt, Kitchener and Waterloo). This Master Plan is currently being updated with completion expected by mid-2019. However, the recommendation for implementation of CHP/Cogeneration is not part of this update, and is not expected to change. CHP/Cogeneration uses biogas produced in the treatment of biosolids for production of electrical energy. It also recovers waste heat from the cogeneration process to provide heat required at other wastewater treatment processes and for heating buildings. This process significantly reduces Green House Gas (GHG) emissions by offsetting electrical energy and heating requirements at the WWTPs.
Energy Usage at Wastewater Treatment Plants

Electrical energy is one of the highest operating costs for wastewater treatment, representing 25 percent of these costs. In 2014, Galt, Kitchener and Waterloo WWTPs consumed approximately 27 million kilowatt-hours (kWh) of electricity at a cost of $3.6 million. Electrical energy used at these three plants represents approximately 70 percent of the total electrical energy consumed in the Region’s wastewater treatment systems. Municipalities are adopting renewable energy produced by biogas CHP/Cogeneration to offset energy requirements, reduce the impact of raising electricity costs and reduce GHG emissions.

Regional Council approved on May 3, 2011 the report “Corporate Greenhouse Gas Action Plan.” This report recommended several programs for reducing GHG emissions in the Region, including the long term implementation of CHP/Cogeneration at the Region’s larger WWTPs.

The Ontario Ministry of Energy is currently offering financial incentives to large electricity users in the Province of Ontario for implementing energy efficient upgrades and behind-the-meter generation projects, such as biogas CHP/Cogeneration. More details about this program are provided below.

Ministry of Energy Savings Program

The Ontario Ministry of Energy has initiated a number of programs to reduce energy consumption in the Province. Water Services has identified a number of projects at its wastewater facilities that are potentially eligible for financial incentives through the saveONenergy program. This program is sponsored by the Independent Electricity System Operator (IESO) and administered by the three local power supply utilities (Cambridge and North Dumfries Hydro, Kitchener-Wilmot Hydro and Waterloo North Hydro, from here on identified as CKW Group). Report TES-WAS-15-28 dated September 15, 2015, provides more details about the Water Services Energy Management Plan and the projects above.

IESO through the Process and Systems Upgrade Initiative (PSUI) also offers financial incentives to large electricity users for implementing projects such as CHP/Cogeneration. This program is also administered by the CKW Group and funding is available between 2015 and 2020. Incentives will cover a maximum of 40 percent of the project capital cost, and, for eligibility, the power generation facility must be commercially operational before December 31, 2020. The eligible incentive for each CHP/Cogeneration facility will be calculated based on the first year of the projected electrical energy production for this facility. The program will also require that that each facility delivers a minimum of 80 percent of this projection for the next 10 years of operation.
CHP/Cogeneration Feasibility Assessments

Prior to approval for CHP/Cogeneration financial incentives, the CKW Group will require that the Region complete an individual feasibility study for each of the three WWTPs potentially eligible for CHP/Cogeneration.

Parallel with the ongoing consulting assignment for the Preliminary Design of the Galt WWTP Upgrades, the Region is also completing a feasibility assessment for the implementation of CHP/Cogeneration at this plant. As part of the design for upgrading the Kitchener and Waterloo WWTPs, the Region has already completed preliminary assessments for the implementation of CHP/Cogeneration at these plants in May 2011 and June 2011, respectively. For these two plants, the Region is also completing additional work to meet specific requirements of the feasibility assessment required by the CKW Group. Feasibility assessments for all three WWTPs will be completed by December 2015.

Proposed Energy Savings

Based on the assessment work completed to-date, it is expected that all three WWTPs above will be eligible for the implementation of CHP/Cogeneration. Preliminary work has indicated that the following approximate amount of electrical energy can be produced at each of the three WWTPs above:

- Galt WWTP: 400 kW (40 percent of the current plant energy consumption)
- Kitchener WWTP: 600 kW (60 percent of the current plant energy consumption)
- Waterloo WWTP: 400 kW (35 percent of the current plant energy consumption)

The above numbers are approximate and do not include the benefits of Heat Recovery from the CHP/Cogeneration facilities, which will provide additional operational savings and GHG emissions reduction at the WWTPs. Upon completion of these three feasibility assessments, more details will be available. Based on current electricity rates, it is expected that the payback for each CHP/Cogeneration facility be less than 10 years.

Proposed Schedule

To be eligible to the PSUI financial incentives, the CHP/Cogeneration facility must be commercially operational before December 31, 2020. The planning phase of this project will require a Renewable Energy Approval by the Ministry of the Environment and Climate Change (MOECC) that follows a process similar to the Class Environmental Assessment, normally followed by water and wastewater projects. Only after receiving this approval, municipalities can proceed to the design and implementation phases of the proposed facilities. The preliminary schedule for the implementation of the
CHP/Cogeneration at the Galt, Kitchener and Waterloo WWTPs is summarized below:

- Feasibility Studies for Galt, Kitchener and Waterloo WWTPs  
  December 2015
- Renewable Energy Approval Consultant Selection  
  Early 2016
- Renewable Energy Approval and Pre-Design  
  Summer 2017
- Detailed Design & Construction Admin. Consultant Selection  
  Summer 2017
- Detailed Design  
  End 2018
- Start Construction  
  Summer 2019
- Commissioning  
  Fall 2020

Project Delivery

The schedule to meet the deadline of December 31, 2020 to be eligible for the Province financial incentives is very tight. Normal project delivery process used by the Region for capital projects would split the consulting assignment in two phases: Renewable Energy Approval and Pre-Design (Planning Phase), and Detailed Design and Construction Administration (Implementation Phase). The consultant selection for each of these phases could take up to 6 months from preparing the Terms of Reference, to receiving Council approval and initiating the assignment.

For some large and complex consulting assignments such as the Kitchener WWTP Upgrades (2010 to date) and the Federal Stimulus Fund Projects (2009 to 2011), the Region received Council approval for accelerating project delivery by retaining the same Consultant for all the phases of the project. For these projects, a Consultant was selected using the Region’s consultant selection policies for completing the consulting work for the Planning Phase of the project. Upon successfully completing this phase of the project, when sufficient details were available for defining the consulting requirements for the Implementation Phase of the project, the same Consultant prepared a work plan and consulting cost estimate for this phase. Region’s staff reviewed the proposed costs, negotiated with the Consultant, and upon agreement that the proposed costs were fair for the undertaking, recommended Council award for the Implementation Phase of the project. Delivery of the projects based on this approach was successful by reducing project costs and delivery time by almost one year.

The above streamlined approach is in line with the Region’s Purchasing By-Law (By-Law Number 04-093), Part VII – Purchase By Negotiation, Section 21. (1). (g). This section estates that the Chief Purchasing Officer may acquire goods and services by negotiation when the extension of an existing or previous contract would prove more cost effective or beneficial for the Region.

Due to the limited timeframe for the implementation of the CHP/Cogeneration facilities, Regional staff recommends a streamlined approach to accelerate the implementation of
this project, where the same Consultant will be used for all phases of the project.

Corporate Strategic Plan:

The implementation of CHP/Cogeneration at the Galt, Kitchener and Waterloo WWTPs contributes to Focus Area 1: Environmental Sustainability and Strategic Objective 1.2.3: Develop an Energy Reduction Plan for Water and Wastewater facilities.

Financial Implications:

The approved 2015 Wastewater Ten Year Capital Program includes $25.8 million between 2018 and 2024 for the implementation of CHP/Cogeneration at the Region’s WWTPs. It is expected that engineering costs for this project be approximately $3 million. In the upcoming 2016 Wastewater Ten Year Capital Program, these funds will be advanced to allow implementation of the CHP/Cogeneration at the Galt, Kitchener and Waterloo WWTPs before December 31, 2020.

Other Department Consultations/Concurrence:

Planning, Development and Legislative Services and Design and Construction were consulted regarding the implementation of CHP/Cogeneration at the Region’s WWTPs.

Attachments

Nil

Prepared By: Pam Law, Senior Project Engineer, Water Services

Approved By: Thomas Schmidt, Commissioner, Transportation and Environmental Services
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<td>Council Enquiries and Requests for Information</td>
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