



Report: TES-DCS-15-04

Region of Waterloo

Transportation and Environmental Services

Design and Construction

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

Date: March 24, 2015 **File Code:** C04-20, 07303, 05927

Subject: **Fountain Street Improvements, From Kossuth Road / Fairway Road to Cherry Blossom Road, City of Cambridge - Recommended Design Alternative**

Recommendation:

That the Regional Municipality of Waterloo take the following actions with respect to the Class Environmental Assessment Study for proposed improvements to Fountain Street from Kossuth Road / Fairway Road to Cherry Blossom Road in the City of Cambridge:

- a) Approve the Recommended Design Alternative for Fountain Street as outlined in Report TES-DCS-15-04;
- 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) Amend the Traffic and Parking By-law 06-072, as amended, upon completion of construction of the Recommended Design Alternative to:
 - i) Add to Schedule 16 - Lane Designation, northbound left turn, northbound through / left-turn, northbound through, northbound right turn on Fountain Street (Regional Road 17) at Maple Grove Road (Regional Road 38);
 - ii) Add to Schedule 16 - Lane Designation, southbound left-turn, southbound through / left turn, southbound through / right turn on Fountain Street (Regional Road 17) at Maple Grove Road (Regional Road 38);

- iii) Add to Schedule 16 - Lane Designation, eastbound left turn, eastbound through / left-turn, eastbound through, eastbound right turn on Fountain Street (Regional Road 17) at Maple Grove Road (Regional Road 38); and
- iv) Add to Schedule 16 - Lane Designation, westbound left-turn, westbound through / left turn, westbound through / right turn on Fountain Street (Regional Road 17) at Maple Grove Road (Regional Road 38).

Summary:

The Region of Waterloo is currently undertaking a Class Environmental Assessment (Class EA) Study to consider improvements to Fountain Street from Kossuth Road / Fairway Road to Cherry Blossom Road in the City of Cambridge. Please refer to **Appendix “A”** for a Key Plan of the Study Area.

This Class EA Study follows the recommendations of the Regional Transportation Master Plan (RTMP, 2010) which identified the need to widen Fountain Street to four lanes from Kossuth Road / Fairway Road to Maple Grove Road. The timing of this project presents an opportunity to address other deficiencies on Fountain Street. These deficiencies include a lack of continuous connected pedestrian and cycling facilities as well as deteriorated pavement conditions.

This Class EA Study is being directed by a Project Team consisting of staff from the Region of Waterloo and City of Cambridge, Regional Councillor Karl Kiefer and City of Cambridge Councillor Donna Reid. The contribution of former Regional Councillor Jane Brewer is also gratefully acknowledged.

A Public Consultation Centre was held on October 7, 2014 to present plans for the proposed improvements and to receive public input. Comments received from the public were generally supportive of the proposed improvements.

Comments received at the Public Consultation Centre are included in **Appendix “G”** of this report and the Project Team’s response to the comments received is included in **Section 4** of this report.

Based on a review of the technical information gathered for this project as well as a review of all public comments received, the Project Team is now recommending that Regional Council approve the following improvements for Fountain Street from Kossuth Road / Fairway Road to Cherry Blossom Road in the City of Cambridge:

- Reconstruct and widen Fountain Street from Kossuth Road / Fairway Road to Maple Grove Road to provide two (2) through lanes in each direction, plus a combination of raised and flush centre medians;
- Re-pave the existing four lanes on Fountain Street from Maple Grove Road to Cherry Blossom Road;

- Construct a new multi-use trail on each side of Fountain Street from Kossuth Road / Fairway Road to Cherry Blossom Road;
- Install, initially, new street lighting on both sides of Fountain Street from Maple Grove Road to Banat Road, consisting of either (i) double luminaires and fixtures on common poles installed in the median; or (ii) single luminaires and fixtures on poles installed in the boulevard on each side of the road;
- Install, when warranted, new street lighting on both sides of Fountain Street from Banat Road to Kossuth Road / Fairway Road, consisting of either (i) double luminaires and fixtures on common poles installed in the median; or (ii) single luminaires and fixtures on poles installed in the boulevard on each side of the road;
- Install new storm sewers on Fountain Street from Kossuth Road / Fairway Road to Maple Grove Road;
- Install a new sanitary sewer on Fountain Street, from Maple Grove Road to a northern limit between Banat Road and Middle Block Road (exact limit to be determined, pending review by the City of Cambridge) on behalf of the City of Cambridge;
- Install new Regional transmission water main and City of Cambridge distribution water main on Fountain Street from Kossuth Road / Fairway Road to Maple Grove Road;
- Plant new boulevard trees on Fountain Street from Kossuth Road / Fairway Road to Maple Grove Road;
- Construct a new two-lane roundabout at the intersection of Fountain Street and Maple Grove Road, designed to accommodate future expansion to three lanes if required beyond 2028, as previously approved by Regional Council in 2010 in Report E-10-055 and as shown in **Appendix “E”** of this report; and
- Retain, initially, the 2-way stop-controlled intersection at Fountain Street and Middle Block Road. Construct, when warranted by future traffic volumes on Fountain Street and Middle Block Road, either (i) a new two-lane roundabout (designed to accommodate future expansion to three lanes); or (ii) a new signalized intersection.

Staff is now also recommending that Regional Council direct staff to file the Notice of Completion for this Class EA 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.

Construction is currently scheduled to commence in 2018 subject to acquisition of the required property and utility relocations. The work is expected to be implemented in stages over a period of two or more years, depending on traffic volumes and development activity.

The Region's 2015 10-Year Transportation Capital Program includes funding of \$18,180,000 for this project in years 2015 to 2020 to be funded from the Roads Rehabilitation Reserve Fund and the Development Charge Reserve Fund.

Letters notifying interested members of the public that Regional Planning and Works Committee will be considering the approval of the Recommended Design Alternative for this project at its March 24, 2015 meeting were distributed during the week of March 9, 2015.

Report:

1. Background

The Region of Waterloo is currently undertaking a Class Environmental Assessment (Class EA) Study to consider improvements to Fountain Street from Kossuth Road / Fairway Road to Cherry Blossom Road in the City of Cambridge. Please refer to **Appendix "A"** for a Key Plan of the Study Area. This Class EA Study has been initiated by the Region to address several needs on Fountain Street.

1.1 Existing Roadway Configuration and Conditions

Within the Study Area, Fountain Street from Fairway Road / Kossuth Road to Cherry Blossom Road is under the jurisdiction of the Region of Waterloo. Intersecting Regional Roads within the study area include Fairway Road, Kossuth Road and Maple Grove Road. Local intersecting streets under the jurisdiction of the City of Cambridge include Middle Block Road, Banat Road, Allendale Road and Cherry Blossom Road.

Properties abutting Fountain Street from Fairway Road / Kossuth Road to Maple Grove Road are primarily agricultural, with some residential and industrial properties and the Loblaw distribution centre. Properties abutting Fountain Street from Maple Grove Road to Cherry Blossom Road are primarily commercial on the west side of the road, while the Toyota plant occupies the east side of the road.

Fountain Street from Fairway Road / Kossuth Road to Maple Grove Road is currently constructed as a two lane rural road, except at its intersections with Allendale Road and Maple Grove Road, where the road widens to accommodate the intersection geometry. There are no sidewalks on either side of Fountain Street within these limits. Cycling facilities are currently provided through paved shoulders.

Fountain Street from Maple Grove Road to Cherry Blossom Road is currently constructed as a four lane urban road with curb-and-gutter. There are no sidewalks on either side of Fountain Street within these limits, except for a section of sidewalk on the west side of the road from Maple Grove Road to Toyota Gate #1. No cycling facilities are provided within this section of Fountain Street.

The existing roadway asphalt on Fountain Street from Maple Grove Road to Cherry Blossom Road is in a deteriorated condition. Accordingly, the Region's Ten-Year Transportation Capital Program has identified the need for rehabilitation of the pavement on this section of Fountain Street.

This Project is adjacent to the Fountain Street North Improvements (King Street West to Cherry Blossom Road) project, currently scheduled for construction in 2016, as approved by Council in Report E-14-120 in November 2014.

1.2 Planning Framework

This project is classified as a Schedule "C" undertaking in accordance with the Municipal Class Environmental Assessment planning process. Schedule "C" projects include larger, more complex projects with the potential for significant environmental effects. Please refer to **Appendix "B"** for a diagram describing the Class EA process.

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, the Regional Active Transportation Master Plan, Region's East Side Lands (Stage 1) Master Environmental Servicing Plan and other relevant Regional policies and practices.

The **Regional Official Plan (ROP)** 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 Transportation Master Plan (RTMP, 2010)**, through its vision of sustainable development, seeks to optimize the transportation system, encourage increased transit use and provide enhanced opportunities for cycling and walking. The Regional Transportation Master Plan identifies the need to widen Fountain Street from two lanes to four lanes between Maple Grove Road and Fairway Road / Kossuth Road within the five (5) to ten (10) year time frame in order to provide adequate capacity for the forecasted traffic volumes on this corridor. The Regional Transportation Master Plan fulfills Phase 1 and Phase 2 of the Class EA Schedule "C" requirements. The Fountain Street Study described in this Report TES-DCS-15-04 fulfills Phase 3 and Phase 4 of the Class EA Schedule "C" requirements for the Fountain Street Study Area.

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, cycling lanes, sidewalks and boulevards. According to the CDG, Fountain Street is classified as a “Neighbourhood Connector – Avenue” from Cherry Blossom Road to Kossuth Road. Accordingly, Fountain Street is identified for enhanced pedestrian facilities including sidewalks on both sides of the road with a preferred width of 1.8 metre – 2.1 metre (1.5 metre minimum) or an optional multi-use trail on each side of the road in lieu of sidewalks.

The **Regional Active Transportation Master Plan** is a planning policy document that identifies required improvements to the Region’s walking and cycling network and guides the implementation of these facilities. The 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 within the Study Area. Enhanced pedestrian and cycling facilities on Fountain Street as part of this project would link up with planned pedestrian and cycling infrastructure on Fountain Street south of Cherry Blossom Road, existing active transportation facilities on Fairway Road, and both existing and planned active transportation facilities on Maple Grove Road east and west of Fountain Street.

The Region’s **East Side Lands** (Stage 1) **Master Environmental Servicing Plan** (MESP, 2014) identified the need for expansion of transportation facilities, as well as water distribution and sanitary services along the Fountain Street corridor to accommodate forecasted growth in this area. Please refer to **Appendix “C”** for a key plan showing the East Side Lands.

In 2010, Regional Council approved Report E-10-055 recommending construction of a 3-lane roundabout at the intersection of Fountain Street and Maple Grove Road to accommodate forecasted traffic volumes.

This Class EA Study is being directed by a Project Team consisting of staff from the Region of Waterloo and City of Cambridge, Regional Councillor Karl Kiefer and City of Cambridge Councillor Donna Reid. The contribution of former Regional Councillor Jane Brewer is also gratefully acknowledged.

2. Transportation Study

A detailed Transportation Study has been completed as part of this Class EA Study. The purpose of the Transportation Study was to examine existing traffic operations within the study area, forecast future traffic volumes to the year 2031, and identify and evaluate alternative transportation solutions for accommodating forecasted traffic volumes and improving traffic operations.

The Transportation Study provided the following recommendations to improve roadway capacity and traffic operations on Fountain Street within the Study Area:

- Widen Fountain Street to provide two (2) through lanes of traffic in each direction from Fairway Road / Kossuth Road to Maple Grove Road;
- Initially retain the existing two-way stop-controlled intersection at Fountain Street and Middle Block Road as part of the planned 2018 construction. In the future, when warranted by traffic volumes on Fountain Street and Middle Block Road, construct either (i) a new two-lane roundabout (designed to accommodate future expansion to three lanes); or (ii) a new signalized intersection;
- Construct a new two-lane roundabout at the intersection of Fountain Street and Maple Grove Road (designed to accommodate future expansion to three lanes, if required beyond 2028) as previously approved by Regional Council in 2010 in Report E-10-055 and as shown in **Appendix “E”** of this report; and
- Consider implementation of a northbound left-turn lane at the industrial plaza at 1050 Fountain Street (opposite to Toyota Gate #1) to alleviate traffic queues caused by left turning vehicles at this location.

Implementation of a roundabout was also considered by the Project Team to replace the existing traffic control signals on Fountain Street at Allendale Road. The Project Team’s evaluation found that taking into account the estimated capital, operating and societal costs of traffic control signals and roundabouts, collision histories at each intersection and property constraints, a roundabout was not recommended to replace the existing traffic control signals at the intersection of Fountain Street and Allendale Road.

3. Design Alternatives

The Project Team developed specific engineering design alternatives to address the needs previously established for the above-noted sections of Fountain Street, including (i) widening of Fountain Street from two lanes to four lanes from Fairway Road / Kossuth Road to Maple Grove Road; (ii) re-paving of Fountain Street from Maple Grove Road to Cherry Blossom Road; (iii) construction of expanded facilities for walking and cycling; and (iv) construction of the roundabout at Fountain Street and Maple Grove Road as approved by Council in Report E-10-055 and as shown in **Appendix “E”** of this report.

	Design Alternative 1 ("Do Nothing" alternative for baseline comparison)	Design Alternative 2	Design Alternative 3
Fountain Street from Fairway Road / Kossuth Road to Maple Grove Road	N/A (retain existing configuration)	Reconstruct and widen as 4-lane urban roadway	Reconstruct and widen as 4-lane urban roadway
Fountain Street from Maple Grove Road to Cherry Blossom Road	Re-Pave only; (retain existing configuration)	Re-Pave; Add northbound left- turn lane at Toyota Gate #1	Re-Pave; Add northbound left- turn lane at Toyota Gate #1
Walking and Cycling Facilities from Fairway Road / Kossuth Road to Cherry Blossom Road	N/A	Construct on-road cycling lanes & sidewalks on each side of road	Construct an off- road multi-use trail on each side of road

4. Public Consultation

A Notice of Study Commencement was mailed and/or hand-delivered to property owners, residents, tenants and businesses within the Fountain Street corridor and also to other relevant agencies and stakeholders in May 2014. This Notice was also advertised in area newspapers.

A letter describing the design alternatives under consideration and inviting recipients to attend the Public Consultation Centre was mailed and/or hand-delivered to property owners, residents, tenants and businesses within the Fountain Street corridor in September 2014. An advertisement advising of the Public Consultation Centre was also placed in area newspapers.

4.1 Preferred Alternative Identified by the Project Team

Prior to the Public Consultation Centre

Prior to the Public Consultation Centre the Project Team evaluated the design alternatives according to the applicable standard criteria set out in the Class EA process. The criteria considered included:

- Natural Environment;
- Social / Economic Environment;
- Transportation Environment; and
- Cost

Please refer to **Appendix “F”** for a more detailed description of the above criteria.

Please refer to **Appendix “G”** for the Project Team’s evaluation of the design alternatives presented at the Public Consultation Centre on October 7, 2014.

Based on this preliminary evaluation of the design alternatives using the above noted criteria, for Fountain Street from Fairway Road / Kossuth Road to Cherry Blossom Road, Design Alternative 3 was presented by the Project Team as the Preferred Design Alternative at the Public Consultation Centre.

4.2 Public Consultation Centre: October 7, 2014

The Project Team hosted a Public Consultation Centre (PCC) at the Region of Waterloo Operations Centre, 100 Maple Grove Road in the City of Cambridge on Tuesday, October 7, 2014 from 4:00 p.m. to 8:00 p.m. Plans showing the proposed design alternatives and the Project Team’s Preferred Design Alternative were on display and Project Team representatives were present to answer questions and to receive feedback from members of the public. Approximately twenty-five (25) members of the public attended the PCC with nineteen (19) members of the public that formally signed in.

4.3 Public Comments and Issues Raised

The Project Team received two (2) comment sheets and five (5) e-mail messages from the public.

Please refer to **Appendix “H”** for a summary of the written comments received.

The Project Team received primarily positive comments from the public at the PCC regarding the proposed improvements. Of those respondents submitting comment sheets, one (1) respondent indicated that they were in favour of the proposed improvements, and one (1) respondent indicated that they were “not against” the proposed improvements.

The main issues raised by the public are summarized as follows:

Issue #1: One (1) comment sheet and one (1) e-mail message were received from residents on the west side of Fountain Street, between Allendale Road and Banat Road (2300 through 2340 Fountain Street), expressing a concern with the potential impact of the roadway improvements on the existing residential driveways. One of these residents suggested that any widening of the road be undertaken toward the opposite (east) side of Fountain Street, adjacent to the Loblaw distribution centre property.

Project Team Response: Fountain Street currently provides two lanes in the southbound direction entering the intersection at Allendale Road (adjacent to the residential properties) and one lane in the northbound direction leaving the intersection at Allendale Road (adjacent to the Loblaw property). Accordingly, road widening from one to two lanes in the northbound direction will occur on the east side of the roadway corridor and as close to the Loblaw property as feasible without requiring any removal of the existing berm on the Loblaw property that is designed to shield the residential properties from noise from Loblaw operations. The multi-use trails will be constructed entirely within the existing Regional right-of-way. No permanent property acquisition will be required from the residential properties abutting Fountain Street between Allendale Road and Banat Road. Geometric design of the roadway and entrances will be undertaken in accordance with established principles, guidelines and practices to maximize the safety of access to and from driveways.

Issue #2: One (1) comment sheet posed a question as to the responsibility for clearing snow/ice from the multi-use trails in front of residential, commercial and agricultural properties.

Project Team Response: The City of Cambridge will assume the responsibility and cost for clearing snow and ice from the multi-use trails.

Issue #3: One (1) e-mail message from an area business expressed concern that the proposed roundabout at Fountain Street and Maple Grove Road will not have sufficient capacity to accommodate the large volume of truck traffic at that intersection.

Project Team Response: Based on forecast traffic volumes, the proposed 2-lane roundabout is projected to provide sufficient capacity until 2028. The roundabout will include right-turn by-pass lanes on two legs to minimize the number of vehicles within the circulatory roadway. The roundabout will be designed so as to be readily expandable to provide an ultimate configuration with 3 circulatory lanes plus right-turn by-pass lanes, if necessary in the future, subject to Council approval.

Issue #4: One (1) e-mail message from a representative of the industrial plaza at 1050 Fountain Street (opposite to Toyota Gate #1) noted that much of the northbound left-turn traffic into the plaza consists of motorists using the plaza entrance to effect a northbound U-turn in order to avoid traffic queues during Toyota shift changes. The plaza representative expressed a concern that the proposed northbound left-turn lane

into the industrial plaza, intended to reduce northbound through-lane queuing, will encourage more motorists to use the plaza entrance to effect the above-noted U-turn.

Project Team Response: The Region and Toyota have been meeting on an ongoing basis in order to coordinate traffic studies, share data and work toward coordinated improvements to traffic operations. Some potential solutions may eliminate the need for the left-turn lane proposed at the Public Consultation Centre. Accordingly, staff recommends that the proposed left-turn lane be set aside at this time in anticipation of improvements to traffic patterns resulting from the joint efforts of the Region and Toyota. The traffic at the above-noted entrance will be reviewed in the future following implementation of these improvements.

Issue #5: One (1) e-mail from a citizen who often travels on Fountain Street and Maple Grove Road expressed a concern that current traffic volumes on Fountain Street do not justify the project. This citizen suggested that the Region widen Maple Grove Road from Fountain Street to Hespeler Road instead of the proposed widening of Fountain Street, especially in light of traffic associated with Toyota shift changes.

Project Team Response: Staff will be commencing the planning for widening of Maple Grove Road from Fountain Street to Hespeler Road starting this year. Based on experience with projects of similar scope and extent, the Class Environmental Assessment, engineering design, property acquisition, utility relocations and receipt of all permits and approvals are expected to take approximately four to five years to complete. Accordingly, construction of the Maple Grove Road widening is currently scheduled to commence in 2020 in the Region's Transportation Capital Program; however, if staff identifies an opportunity for earlier commencement of construction, a recommendation to Council to advance construction could be made.

The Fountain Street corridor will be the central traffic artery of the East Side Lands, a major planned commercial/industrial "employment lands" area. The Region's Transportation Master Plan and Transportation Study completed as part of this Class EA confirmed that Fountain Street will need to be widened in order to accommodate the significant traffic demands associated with the East Side Lands development. The timing of the widening will be reviewed by the Region on an ongoing basis.

Improvements to Fountain Street adjacent to Toyota, from Maple Grove Road to Cherry Blossom Road, are currently scheduled to commence in 2018. Toyota and the Region have been in regular communication from the outset of the planning process.

Toyota is currently conducting a review of internal traffic flows and their effects on entrances on Fountain Street, Maple Grove Road, Cherry Blossom Road and Boxwood Drive. Concurrently, Region staff and Toyota staff have established a joint effort to coordinate traffic studies with a goal of identifying opportunities to improve traffic flow on these roads. Accordingly, it is anticipated that reconstruction of Fountain Street from

Cherry Blossom Road to Maple Grove Road may include modifications to the Toyota entrances to improve traffic flow in to and out of Toyota. This work is scheduled to commence in 2018, along with reconstruction of Fountain Street from Cherry Blossom Road to Highway 401 and construction of the new roundabout at Fountain Street and Maple Grove Road.

Additionally, the Ministry of Transportation of Ontario (MTO) will be replacing the Fountain Street / Highway 401 bridge in 2015 and the Region will be reconstructing Fountain Street from Highway 401 to King Street (including significant improvements to the Fountain Street / King Street intersection) in 2016. These two projects should result in some early improvements to traffic capacity in the area in advance of the work on Fountain Street adjacent to Toyota.

Widening of Fountain Street from Maple Grove Road to Fairway Road / Kossuth Road is currently scheduled to be completed in 2019; however staff will review development activity and projected traffic demands on an ongoing basis and staff anticipates that the widening of this section of Fountain Street may be completed in stages over two or more years.

5. Recommended Design Alternative for Fountain Street

from Fairway Road / Kossuth Road to Cherry Blossom Road

Based on a review of the technical information gathered for this project as well as a review of all public comments received, the Project Team is now recommending that Regional Council approve the following improvements for Fountain Street from Fairway Road / Kossuth Road to Cherry Blossom Road in the City of Cambridge:

- Reconstruct and widen Fountain Street from Kossuth Road / Fairway Road to Maple Grove Road to provide two (2) through lanes in each direction, plus a combination of raised and flush centre medians;
- Re-pave the existing four lanes on Fountain Street from Maple Grove Road to Cherry Blossom Road;
- Construct a new multi-use trail on each side of Fountain Street from Kossuth Road / Fairway Road to Cherry Blossom Road in accordance with Design Alternative 3;
- Install, initially, new street lighting on both sides of Fountain Street from Maple Grove Road to Banat Road, consisting of either (i) double luminaires and fixtures on common poles installed in the median; or (ii) single luminaires and fixtures on poles installed in the boulevard on each side of the road;
- Install, when warranted, new street lighting on both sides of Fountain Street from Banat Road to Kossuth Road / Fairway Road, consisting of either (i) double

luminaires and fixtures on common poles installed in the median; or (ii) single luminaires and fixtures on poles installed in the boulevard on each side of the road;

- Install new storm sewers on Fountain Street from Kossuth Road / Fairway Road to Maple Grove Road;
- Install a new sanitary sewer on Fountain Street, from Maple Grove Road to a northern limit between Banat Road and Middle Block Road (exact limit to be determined, pending review by the City of Cambridge) on behalf of the City of Cambridge;
- Install new Regional transmission water main and City of Cambridge distribution water main on Fountain Street from Kossuth Road / Fairway Road to Maple Grove Road;
- Plant new boulevard trees on Fountain Street from Kossuth Road / Fairway Road to Maple Grove Road;
- Construct a new two-lane roundabout at the intersection of Fountain Street and Maple Grove Road, designed to accommodate future expansion to three lanes if recommended beyond 2028, as previously approved by Regional Council in 2010 in Report E-10-055; and
- Retain, initially, the 2-way stop-controlled intersection at Fountain Street and Middle Block Road. Construct, when warranted by future traffic volumes on Fountain Street and Middle Block Road, either (i) a new two-lane roundabout (designed to accommodate future expansion to three lanes); or (ii) a new signalized intersection.

The Project Team recommends Design Alternative 3 for the following key reasons:

- Design Alternative 1, the “do nothing” option, does not achieve the planning recommendations of the Regional Transportation Master Plan and Active Transportation Master Plan. Specifically, the “do nothing” option does not provide the traffic capacity necessary to support projected traffic volumes, and the “do nothing” option does not address the gaps in connectivity in the current walking and cycling network within the Study Area;
- The multi-use trails proposed under Design Alternative 3 are more consistent with the recommendations of the Active Transportation Master Plan than the sidewalk and cycling lane combination proposed under Design Alternative 2;
- Implementation of cycling lanes on Fountain Street from Maple Grove Road to Cherry Blossom Road would require removal and replacement of all existing curb-and-gutter and relocation/adjustment of several catch-basins and other

components of the existing storm sewer system in order to widen the overall paved roadway width, whereas implementation of the multi-use trails will not generally require these removals, relocations and adjustments; and

- The cost to implement Design Alternative 3 is slightly lower than the cost of Design Alternative 2.

Please refer to **Appendix “D3”** for a drawing of the Project Team’s Recommended Design Alternative for Fountain Street.

Implementation of the Project Team’s proposed improvements will require that small parcels of property be acquired from approximately twenty-five (25) property owners abutting Fountain Street.

A total of seven potential Cultural Heritage Resources (five farmsteads, one residence, one railscape) were identified within or adjacent to the Study Area. Construction of the planned Fountain Street improvements is not anticipated to adversely impact any of the seven Cultural Heritage Resources.

Staff is now 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.

Construction of the new roundabout at Fountain Street and Maple Grove Road will require that Traffic and Parking By-law 06-072, as amended, be amended to define the formal lane designations at this roundabout.

6. Project Timing, Construction Staging and Traffic Management During Construction

Construction of the Fountain Street improvements is currently scheduled to commence in 2018 in the Region’s Approved 2015 Ten-Year Transportation Capital Program. This construction timing is contingent upon the timely acquisition of required property, utility relocations, and receipt of technical and financial approvals. Staff currently expects that the work will be implemented in stages over a period of two or more years.

Staff currently anticipates that the first stage of road construction will include construction of Fountain Street from Maple Grove Road to Cherry Blossom Road, including construction of the roundabout at the intersection of Fountain Street and Maple Grove Road. The second stage of road construction will include construction of Fountain Street from Maple Grove Road to approximately 1,000 metres north of Maple Grove Road. The third stage of construction will include construction of Fountain Street from approximately 1,000 metres north of Maple Grove Road to the project limits at

Kossuth Road / Fairway Road. The timing of the third stage of road construction will depend on traffic volumes and development activity.

Underground water and sanitary works will generally be undertaken at the same time as the associated road works; however, if a deferral of the third stage of road construction is warranted, certain underground water and sanitary works within the third stage section may be undertaken in advance during the second stage. These water and sanitary works could generally be undertaken without disruption to traffic, and in a manner that facilitates the future third stage works.

Staff will develop detailed staging plans during the detailed design phase of this project. Construction of the Fountain Street improvements from Fairway Road / Kossuth Road to Cherry Blossom Road will be completed by maintaining one through lane of traffic in each direction plus left-turn lanes at intersections where feasible. Traffic may be reduced to one lane for short periods requiring flagging operations to maintain two-way traffic.

8. Estimated Project Cost

The estimated total project cost associated with the proposed 2018-2019 Fountain Street improvements, including engineering, property acquisition, utility relocations construction, inspection, material testing and other project costs is \$22,500,000.

The cost apportionment between the Region of Waterloo and the City of Cambridge is summarized as follows:

Jurisdiction	Description of Works	Estimated Cost
Region of Waterloo (Transportation)	▪ Road works ▪ Share of storm works (MESP)	\$18,000,000
Region of Waterloo (Water Services)	▪ Transmission water main	\$2,200,000
City of Cambridge	▪ Share of storm works (MESP) ▪ Distribution water main ▪ Sanitary sewer extension	\$2,300,000

9. Next Steps

Subject to Regional Council approval of the Recommended Design Alternative, a Notice of Completion will be filed for this project by means of mail-outs and advertised notices;

and the Environmental Study Report, which will include all relevant documentation regarding the planning and decision-making process, will be placed on the public record for a mandatory period of 30 days. During this 30 day filing period, any party may object to the Recommended Design Alternative by requesting the Ministry of Environment grant a Part II Order requesting that the project be subject to a full environmental assessment. A request for a full environmental assessment must be made in writing to the Minister of Environment with a copy to the Region's Commissioner of Transportation and Environmental Services. When the 30 day public filing has expired and if no requests for a full environmental assessment are received by the Minister within that 30 days, the Recommended Design Alternative will be considered approved for implementation.

Subject to Regional Council approval of the Recommended Design Alternative, this Class EA Study will be completed and filed in April 2015 and detailed design will commence in May 2015.

Letters advising of the recommendations contained in this Report TES-DCS-15-04 were mailed to all agencies and those who attended the October 7, 2014 Public Consultation Centre, and hand-delivered to all owners/residents abutting the Fountain Street project limits during the week of March 9, 2015.

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 2015 10-Year Transportation Capital Program includes funds of \$18,180,000 in years 2015 to 2020 inclusive for design and construction of the improvements to Fountain Street from Kossuth Road / Fairway Road to Cherry Blossom Road, to be funded from the Roads Rehabilitation Reserve Fund and the Development Charge Reserve Fund, which is sufficient to cover the Region's share of road construction costs. The Region's Water Capital Program includes \$8,600,000 in 2015 to 2020, inclusive, for watermain upgrades and new watermain, including \$2,200,000 allocated for the Fountain Street trunk watermain.

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 lane designations at the proposed Fountain Street / Maple Grove Road roundabout.

Attachments

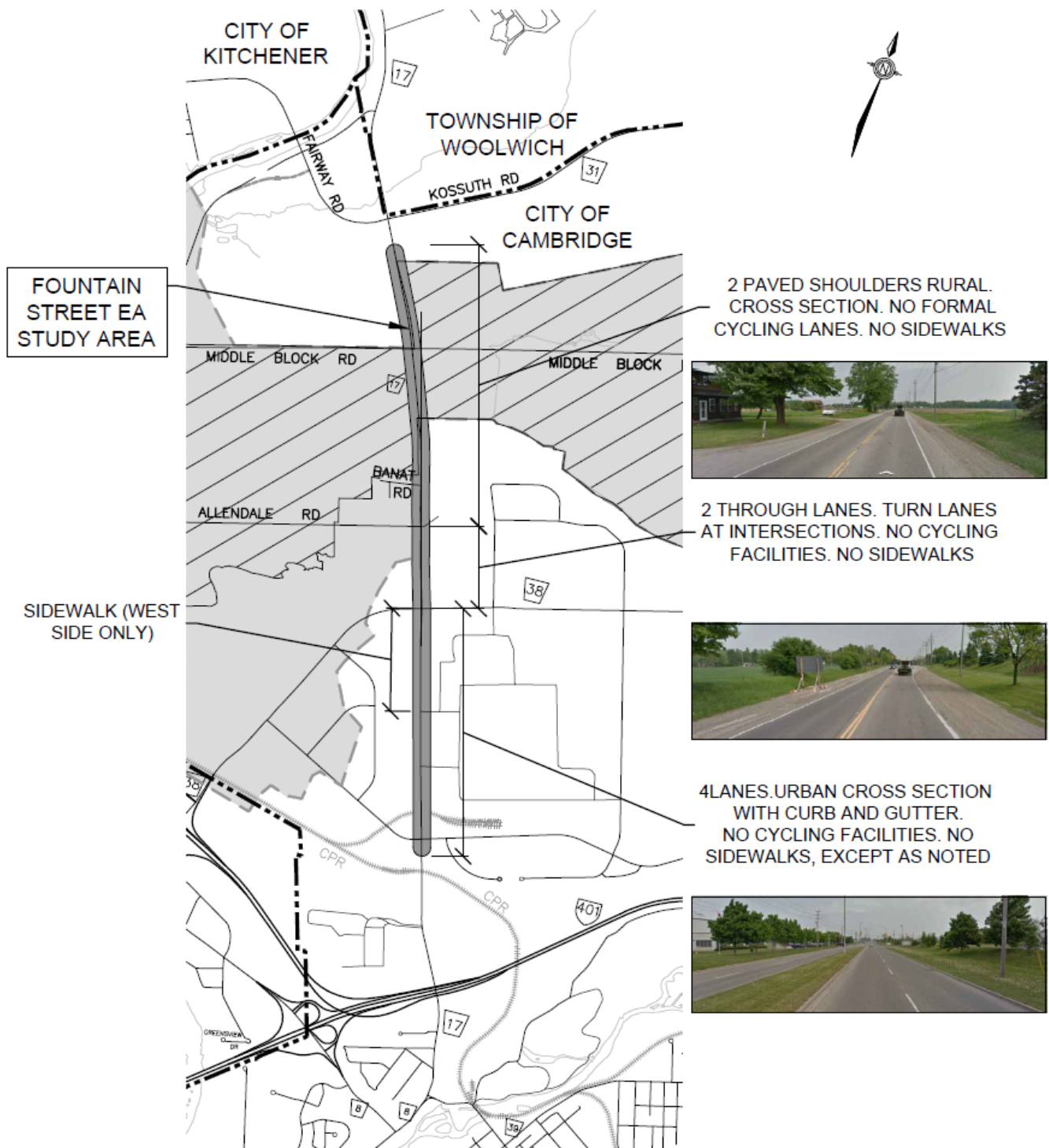
Appendix A	Key Plan of Study Area and Existing Roadway Configuration
Appendix B	Class Environmental Assessment Process
Appendix C	Key Plan Showing Fountain Street and East Side Lands
Appendix D1	Design Alternative 1 – “Do Nothing”
Appendix D2	Design Alternative 2
Appendix D3	Design Alternative 3 – “Recommended Design Alternative”
Appendix E	Proposed Interim 2-Lane Roundabout at Fountain Street and Maple Grove Road
Appendix F	Detailed Description of Evaluation Criteria
Appendix G	Project Team’s Evaluation Matrix for Design Alternatives
Appendix H	Summary of Written Comments Received at Public Consultation Centre

Prepared By: John Stephenson, Senior Project Manager

Approved By: Thomas Schmidt, Commissioner, Transportation and Environmental Services

Appendix "A"

Key Plan of Study Area and Existing Roadway Configuration



Appendix “B”

Class Environmental Assessment Process

Municipal Class Environmental Assessment

Ontario Environmental Assessment Act

The purpose of the Ontario Environmental Assessment Act (EA Act) is to provide for “the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management of the environment in Ontario”.

Environment is applied broadly and includes the natural, social, cultural, built and economic components.

The key principles of successful environmental assessment planning include:

- Consultation with stakeholders and affected members of the public;
- Consideration of a reasonable range of alternatives;
- Assessment of the environmental impacts for each alternative;
- Systematic evaluation of alternatives; and
- Clear documentation of the process followed.

Municipal Class Environmental Assessment (EA)

The Municipal Class Environmental Assessment (EA) is a planning process approved under the Environmental Assessment Act that is used by municipalities to plan infrastructure enhancement projects while satisfying the requirements of the Environmental Assessment Act. Under the Class EA process, projects are planned in one of three ways depending on their scope, complexity, and potential for adverse environmental impacts.

Schedule	Description
Schedule “A”	Routine projects that are considered straight-forward and minimally impactful, such as maintenance, operations and emergency activities. Such projects are designated as “pre-approved” under the Class EA and may proceed directly to implementation.
Schedule “A+”	Routine projects that are considered straight-forward with minor or short-term impacts. Such projects are designated as “pre-approved” under the Class EA and may proceed directly to implementation; however, the proponent is required to advise area residents and stakeholders of the pending commencement of the project.

Schedule "B"	Projects with the potential for some adverse environmental effects. Such projects must undergo a program of public, stakeholder and agency consultation and a detailed Project File documenting the planning process must be placed on the public record. Subsequently, the project is considered to be "approved" under the Class EA.
Schedule "C"	Larger and more complex projects with the potential for significant environmental effects. Such projects must undergo a program of public, stakeholder and agency consultation, including 3 points of formal public contact. A detailed Environmental Study Report (ESR) must be completed and placed on the public record. Subsequently, the project is considered to be "approved" under the Class EA.

The Class EA process includes four (4) key phases:

Phase 1	Identify the problem, deficiency or opportunity, and develop a clear statement of the issues that are to be addressed.
Phase 2	Identify the reasonable alternative solutions that could be implemented to address the issues. Establish the preferred solution based on an assessment of the environmental impact, including consideration of stakeholder input.
Phase 3	Identify alternative methods of implementing the preferred solution. Establish the preferred method based on an assessment of the environmental impact, including consideration of stakeholder input.
Phase 4	Compile all relevant study information, including study rationale, environmental considerations, consultation process and recommendations into a clear and easily understood report entitled an "Environmental Study Report" (ESR), and make the document available for review by interested or affected parties.

Public Involvement

Members of the public that have a stake in the project are encouraged to provide comment throughout the Class EA process. For Schedule "C" projects there are a minimum of three (3) opportunities for public contact. Opportunities for public contact typically include Notices of Study Commencement, Public Consultation Centres (for Master Plans and specific projects undertaken in accordance with approved Master Plans), Notices of Study Completion and other project-specific opportunities for public input.

Class EA Process for Schedule “C” Projects

Change in Project Status – Appeal Provision

It is recommended that all stakeholders (including the proponent, public and review agencies) work together to determine the preferred means of addressing a problem or opportunity. If you have any concerns, you should discuss them with the proponent and try to resolve them. In the event that there are major issues which cannot be resolved, you may request the Minister of the Environment by order to require a proponent to comply with Part II of the EA Act before proceeding with a proposed undertaking which has been subject to Class EA requirements. This is called a “Part II Order”. The Minister will make one of the following decisions:

1. Deny the request (with or without conditions);
2. Refer the matter to mediation; or
3. Require the proponent to comply with Part II of the EA Act, ordering a full Environmental Assessment.

All stakeholders are urged to try to resolve issues since it is preferable for them to be resolved by the municipality in which a project is located, rather than at the provincial level.

To request a Part II Order, a person must send a written request to :

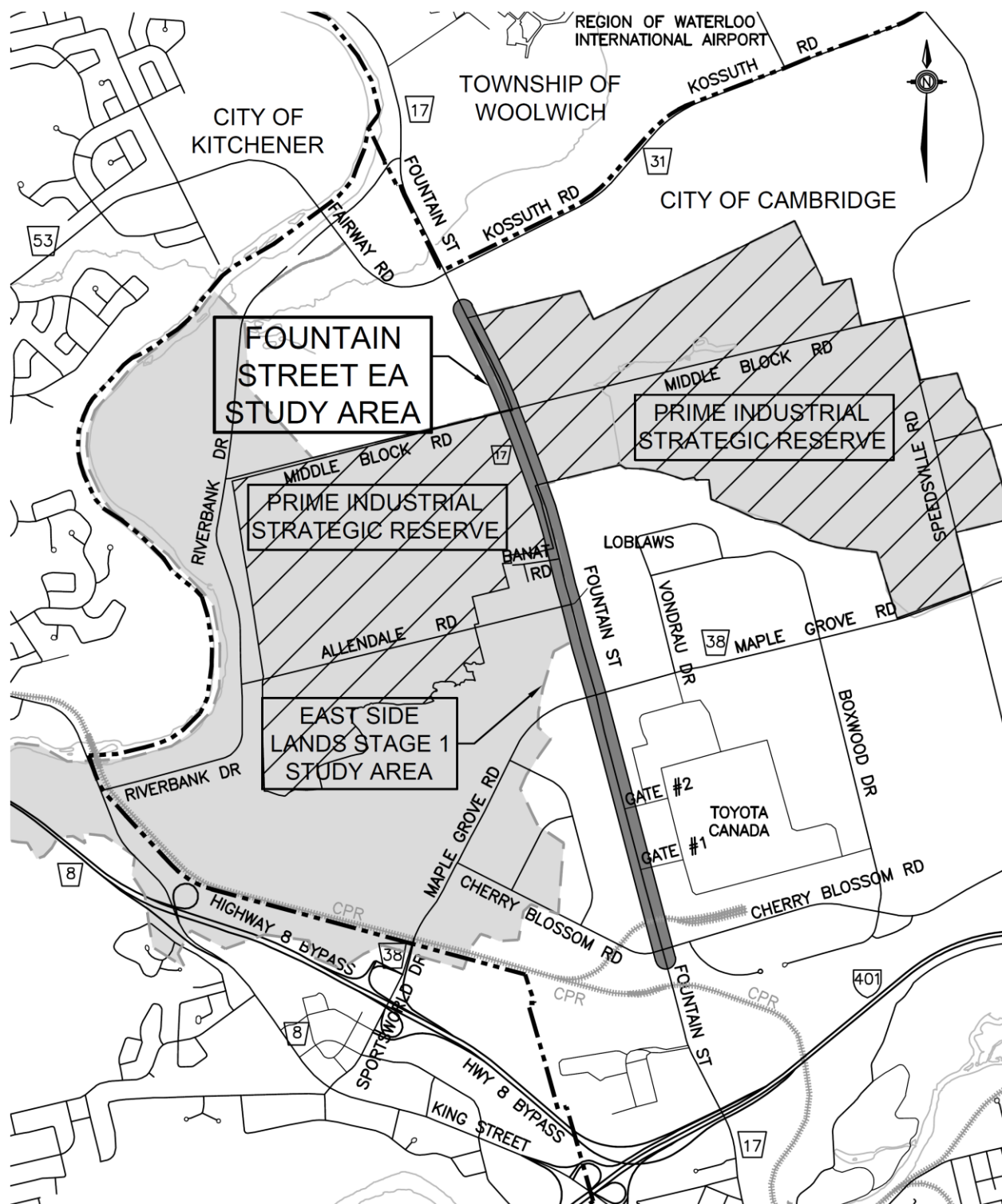
Minister of the Environment
135 St. Clair Avenue West
12th Floor
Toronto, ON
M4V 1P5

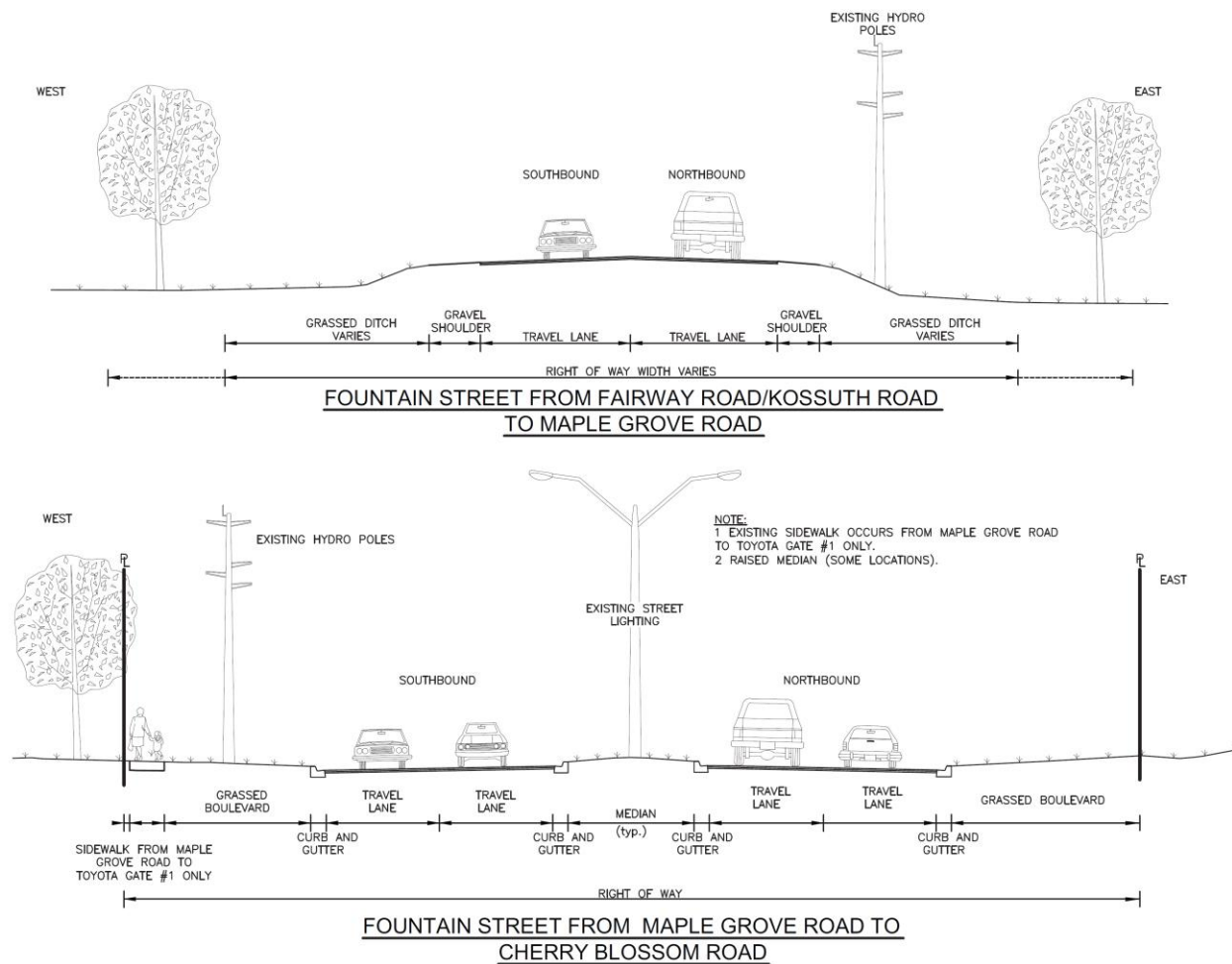
The request must address the following with respect to the identified concerns:

- Environmental Impacts and specific concerns;
- Adequacy of the planning and public consultation process;
- Involvement of the person in the planning process; and
- Details of discussions held between the person and the proponent.

Appendix "C"

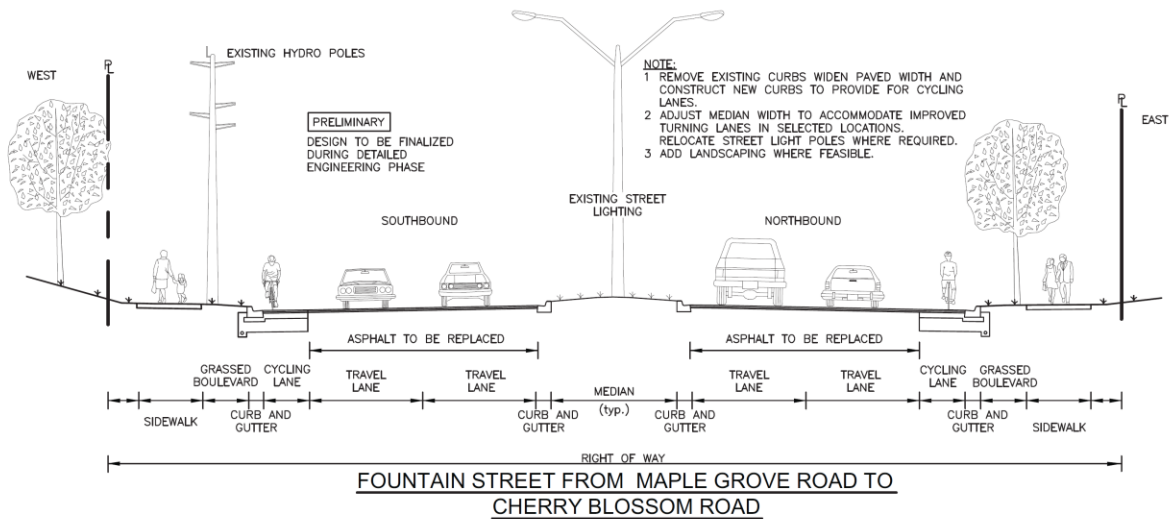
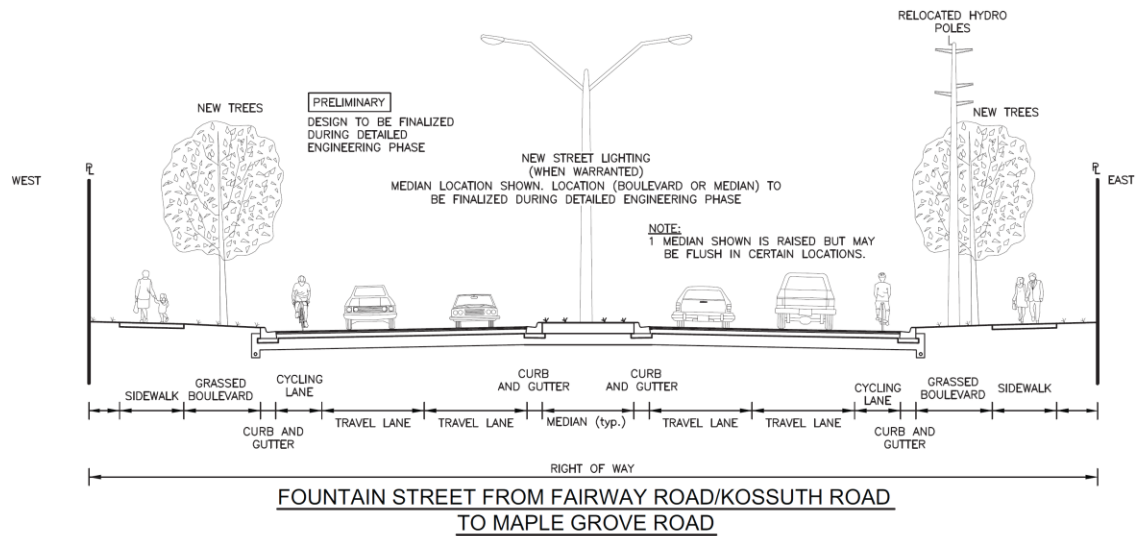
Key Plan Showing Fountain Street and East Side Lands



Appendix "D1"**Design Alternative 1**

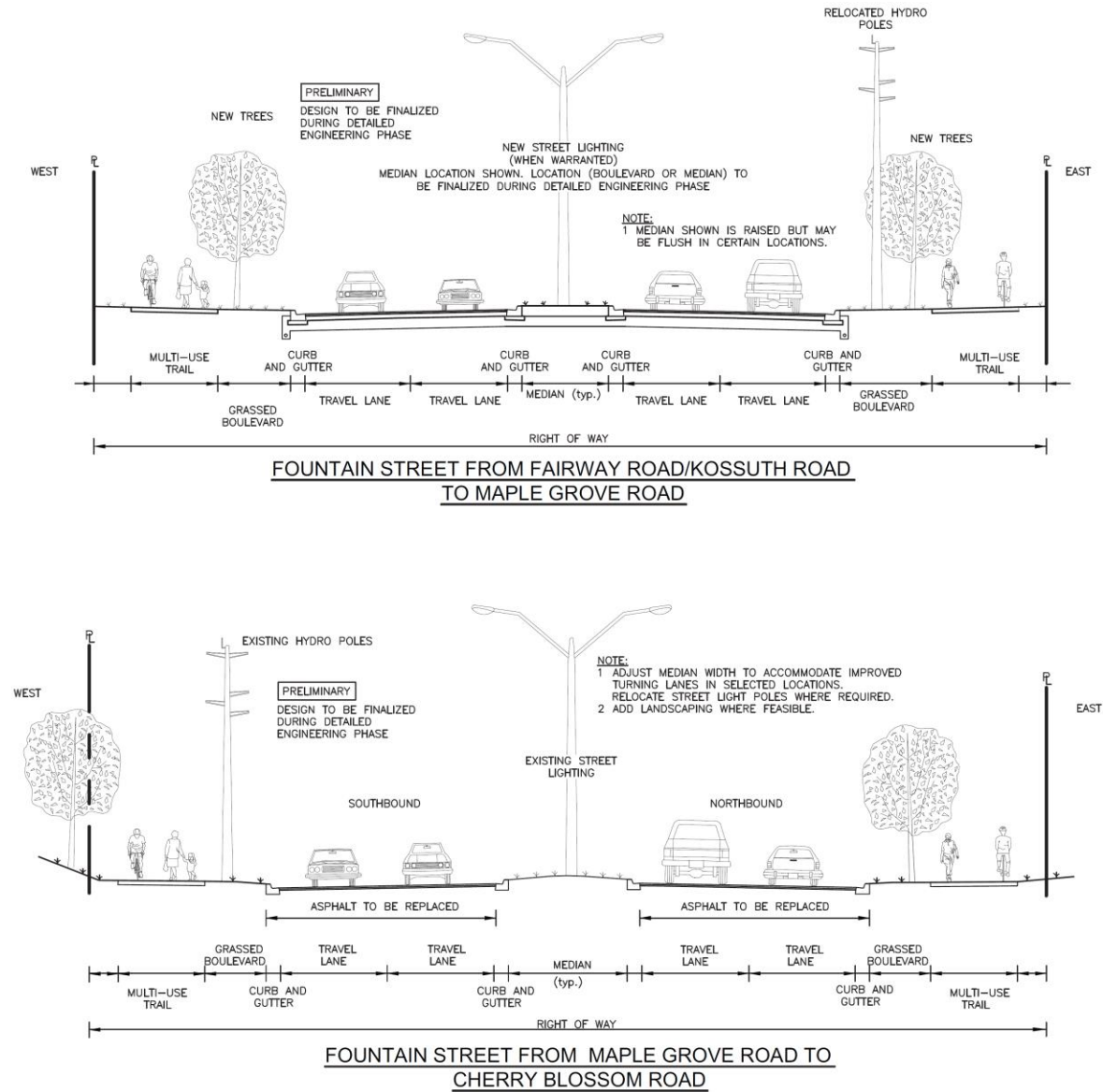
Appendix "D2"

Design Alternative 2



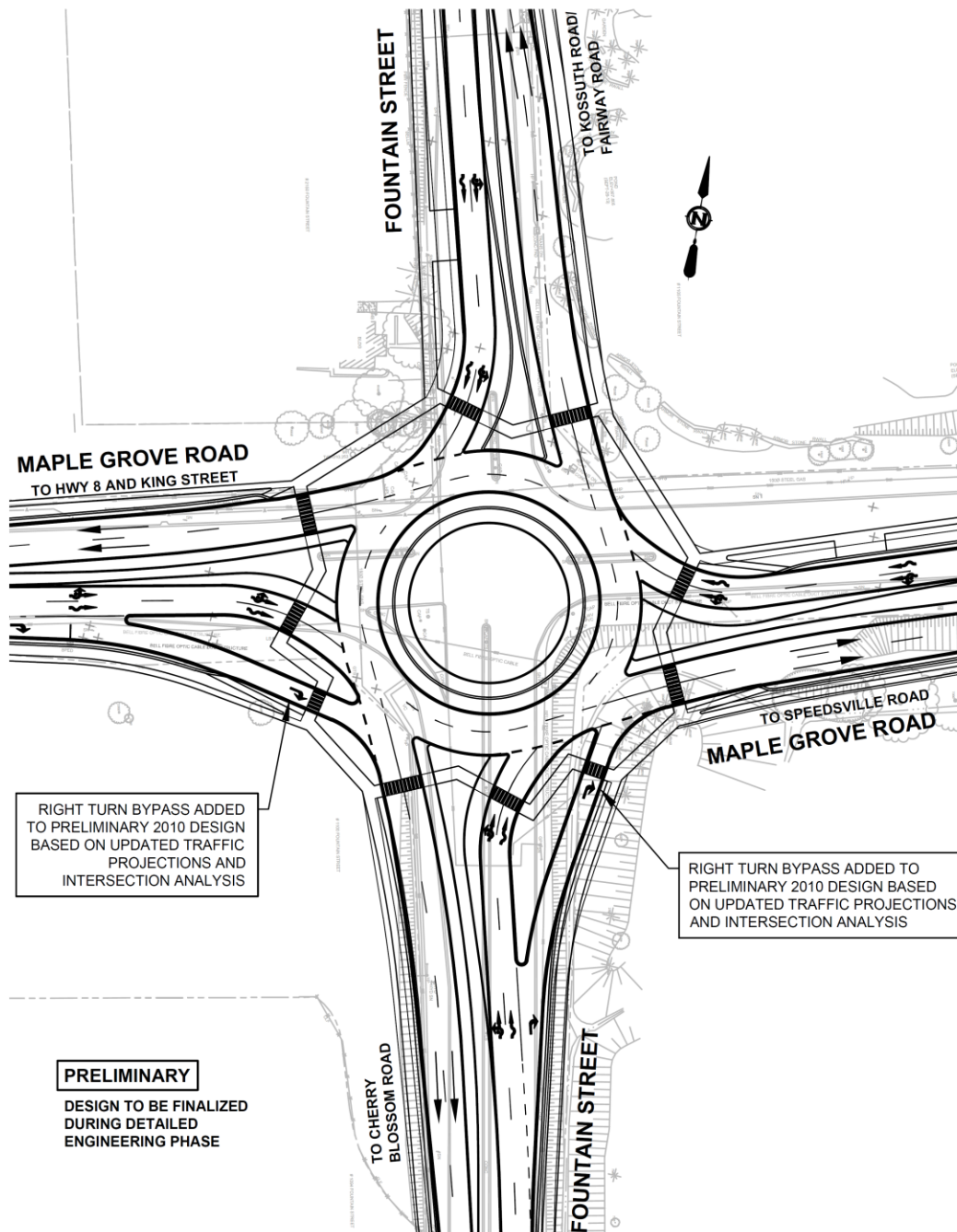
Appendix "D3"

Design Alternative 3



Appendix "E"

Proposed Interim 2-Lane Roundabout At Fountain Street and Maple Grove Road



Appendix “F”**Detailed Description Of Evaluation Criteria for Design Alternatives**

Natural Environment:	How does the alternative affect existing trees, stormwater management, vegetation and wildlife?
Social Economic Environment:	How does the alternative affect the residential and commercial properties abutting the road (driveway access, on-site parking, property impacts, noise, air quality, archaeological, and cultural heritage)?
Transportation:	How does the alternative serve the expected vehicular, transit, pedestrian and cycling traffic in terms of corridor capacity, level of service, transportation network and movement of emergency vehicles?
Capital Cost:	What is the total cost of the alternative including the cost for road construction, utility and streetlighting, property acquisitions, intersection improvements and landscaping?

Appendix “F”**Detailed Description of Evaluation Criteria for Design Alternatives**

Evaluation Criteria		Description
1. Natural Environment		
1.1	Wetlands, Vegetation and Wildlife	How does the design alternative impact the natural features of the corridor and surrounding area?
1.2	Storm Water Quality/Quantity	How does the design alternative impact the quality and quantity of storm water flow?
2. Social / Cultural Environment		
2.1	Property Impacts	Does the design alternative require property acquisition?
2.2	Resident and Business Access	How does the design alternative impact access to residents and businesses?
2.3	Noise	How does the design alternative impact noise levels at residential outdoor living areas?
2.4	Known Archaeological / Built Heritage / Cultural Landscapes	Does the design alternative directly or indirectly impact known sites?
3. Transportation / Technical		
3.1	Traffic Operations	How does the design alternative improve traffic operations?
3.2	Active Transportation (Pedestrian / Cyclist / Transit)	How does the design alternative serve active transportation modes of travel (walking, cycling)?
3.3	Transit Services	How does the design alternative serve transit system users?
3.4	Operations / Maintenance	Can the design alternative be maintained by the Region and City of Cambridge in an efficient and cost-effective manner?
3.5	Future Infrastructure	Does the design alternative facilitate (or not impede) implementation of planned future infrastructure works (e.g. sanitary trunks)?
4. Financial		
4.1	Capital (Construction) Cost	What is the estimated total cost of the design alternative (\$)?

Appendix “G”

Project Team’s Evaluation Matrix for Design Alternatives

CRITERIA GROUP / Criterion	Design Alternative 1 “Do Nothing” Rehabilitation in Current Configuration	Design Alternative 2 Reconstruct as Urban 4-Lane Roadway with Median, Cycling Lanes, Pedestrian Sidewalks	Design Alternative 3 Reconstruct as Urban 4-Lane Roadway with Median, Multi-Use Trails
TRANSPORTATION ENVIRONMENT - Transportation capacity for motor vehicles, transit, pedestrians, cyclists and emergency vehicles. - Operations and maintenance. - Planning for future infrastructure.	 - Does not align with Region’s Transportation Master Plan. - Does not align with draft Active Transportation Master Plan. - Does not address capacity needs. - Does not address pedestrian and cyclist needs. - No improvement to existing conditions for Emergency response times. - No improvement to Transit operations.	 - Aligns with Region’s Transportation Master Plan. - Draft Active Transportation Master Plan indicates preference for multi-use trails. - Addresses capacity needs. - Addresses pedestrian and cyclist needs. - Improvement to Emergency response times. - Improvement to Transit operations.	 - Aligns with Region’s Transportation Master Plan. - Aligns with draft Active Transportation Master Plan. - Addresses capacity needs. - Addresses pedestrian and cyclist needs. - Improvement to Emergency response times. - Improvement to Transit operations.
SOCIAL / CULTURAL ENVIRONMENT - Property impacts. - Resident and business access. - Traffic noise and emissions. - Heritage Resources.	 - No change to existing conditions. - No change to driveways and entrances. - No impact to Heritage Resources. - Traffic noise will increase with increasing traffic. - Does not mitigate congestion and vehicle emissions. - Does not support expansion and development of area business.	 - Some private property required. - Minimal impact to driveway entrances and grades. - No impact to Heritage Resources. - Traffic noise will increase with increasing traffic. - Mitigates congestion and vehicle emissions. - Supports expansion and development of area business.	 - Some private property required. - Minimal impact to driveway entrances and grades. - No impact to Heritage Resources. - Traffic noise will increase with increasing traffic. - Mitigates congestion and vehicle emissions. - Supports expansion and development of area business.
NATURAL ENVIRONMENT - Wetlands. - Vegetation. - Wildlife. - Storm water runoff.	 - No changes to existing conditions. - Allows road runoff and salt to continue to flow directly to adjacent ditches and fields.	 - Captures runoff in formal curb-and-gutter system. - No impact to watercourses and floodplains. - Minor encroachments onto existing fields required. - No impacts on aquatic habitat or fisheries. - Removal of approximately 40 to 50 larger trees. New boulevard trees to compensate for tree loss.	 - Captures runoff in formal curb-and-gutter system. - No impact to watercourses and floodplains. - Minor encroachments onto existing fields required. - No impacts on aquatic habitat or fisheries. - Removal of approximately 40 to 50 larger trees. New boulevard trees to compensate for tree loss.
ECONOMIC ENVIRONMENT Capital Cost	 \$0	 \$18,500,000 (approx.)	 \$18,000,000 (approx.)
OVERALL EVALUATION			 PREFERRED ALTERNATIVE


 LEAST PREFERRED


 MOST PREFERRED

Appendix “H”**Summary of Written Comments Received at the Public Consultation Centre**

Name	Comment
William & Mary Forbes	(from Comment Sheet) Do you support the proposed widening alternative? Not against. Do you support the proposed roundabout at Middle Block Road? Not against. Concern (1) to have safe accessibility to our driveway. Concern (2) who will be responsible for clearing snow/ice from the path/cycle lane at the front of our property? Concern (3) will sewer service be available at the time of the project? If not, a new driveway would need to be considered (e.g. left side of property or behind property or other)
John Hagey	(from Comment Sheet) Do you support the proposed widening alternative? Yes. Do you support the proposed roundabout at Middle Block Road? Yes. I am very pleased to see that there is provision for multi-use trails. Providing a safe area for people to bike, hike, rollerblade, etc. will make Waterloo Region the place to live and play! (Like Vancouver).

Steve Hanson	(via e-mail) Unfortunately I cannot make the meeting but I must comment based on my experience with the roundabout on Highway 24/Hespeler and Beaverdale. This idea of a roundabout will be a disaster as the transport trucks ALWAYS take two lanes up to maneuver through the roundabout. Visit the intersection between 4-6 pm weekdays and see how far Highway 24 is backed up because of this. This intersection (Maple Grove/Fountain) feels like it is even more transport traffic, from all directions. You will force the intersection to effectively be one lane if designed similar to the roundabout on Highway 24. I implore you to reconsider or redesign; it does not work for transports.
George Henry Sr.	(via e-mail) I had planned to attend your meeting tonight but now I have a conflict and will not be able to attend. I apologize but I do have concerns with the construction of a northbound left turn at Toyota Gate#1. If this doesn't include an allowable U-turn provision this will most likely intensify unwanted traffic through our parking lot. We already experience a 'mad dash turn around' in our parking lot during shift change at Toyota. We have been fortunate up until now to have not had [a] major incident, but there have been many close calls. As you can imagine the addition of the left hand turning lane will only increase the flow of traffic towards us. Please take this consequence into consideration.

Kevin Westlake	(via e-mail) I am a resident at 2310 Fountain st n. We sit among 5 residential properties in between Allendale and Banat rds. I was not able to make it out on the Tuesday night information session and would like to provide you some of our concerns with the recent drawing we had received on the road expansion. We were informed when the right hand turn lane was added turning onto Allendale that any future widening of the roadway would take place on the east side of Fountain St. We had already at that point lost approximately 15' of frontage which brought the fast paced roadway closer to our house than we expected. Along with my neighbours we all agree that loosing any more would be unsafe for the family's with children and getting in and out of the driveways. Average speed going through in front of our properties is well over 50km/h. Now based on the drawing sent out it looks like the proposed widening will be going through the middle of my front yard. Which would not be acceptable to any of the residents. I am hopefully reading the drawings wrong but would like some clarification on the proposed work. I do understand the need for expansion and welcome the sewers, sidewalks and roundabouts but not at the expense of loosing any more of our frontage. The eastside of Fountain has no residential properties close to the roadway with ample space for road expansion. I know this is at the beginning stages so I know designs will change but if I could get some clarification on what is actually being considered I would appreciate any information you could provide. The property value impact is also very important to us. Closer a regional roadway encroaches on our property will absolutely decrease it's value in the market place.
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Keith Wallbank	(via e-mail) I've reviewed the planned changes some time ago and unfortunately was unable to attend the information meeting on Oct. 7. I live in Cambridge (West Galt) and on a regular basis travel on Fountain St, along with at one time being employed at a business on Maple Grove Rd. I don't see the necessity at this time for the road to be widened, due to the amount of traffic on it. What is the rationale for the project ? What I do see is an industrial park which has very serious, past due, access challenges: 1) Maple Grove Rd needs to be two lane all the way to Highway #24, which I understand is taking place soon ? Truck traffic has significantly increased with Toyota's expansions as well the construction of Loblaws and the overall increase in businesses operating in the area. Also note that the condition of the two lane section of pavement near Toyota is; unacceptable. 2) Cambridge (Preston) access from Fountain and Speedsville Roads are woefully inadequate; especially during Toyota shift changes. Its gridlock, bumper to bumper traffic. There needs to be four lane access from Cambridge by either: - Widening Speedsville to four lanes from Eagle St to Maple Grove. There are however problems with that as it cuts through a neighbourhood, is there enough width to make it four lane and trucks turning from Eagle onto Speedsville would be too tight, as it is now. - Reconstruction of Witmer St to four lane with either a new bridge over the 401 or link up to Speedsville Rd/401 bridge. A four lane access road also would benefit drivers travelling to and from Kitchener vs. the King St/Fountain St./Shantz Hill which is badly overloaded. Eagle St feeds the immediate industrial park and Lowell industrial park, four lane access would significantly improve traffic flow to and from those areas.
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Keith Wallbank	The only adequate access to the industrial park is from Highway 8 and King St to Maple Grove (All four lane roads) until it narrows to one lane. The Region needs to focus on the weakest access points vs. changes which will create minimal improvements to traffic flow. When you look at other industrial parks such as Kitchener's south side (Wilson Ave, Homer Watson Rd & Huron Rd), there are four lane road access surrounding this park. Yet at what is either the largest or one of the largest industrial parks in the Region, there isn't ?
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