

Staff Report



To	City Council
Service Area	Infrastructure, Development and Enterprise Services
Date	Monday, August 24, 2020
Subject	Gordon Street Improvements (Edinburgh Rd-Lowes Rd) Schedule B Municipal Class Environmental Assessment

Recommendation

That staff be authorized to issue a notice of completion for the Gordon Street Improvements Schedule 'B' Class Environmental Assessment and place the Environmental Study Report on the public record for the mandatory 30 day public review period prior to implementation of the preferred alternative.

Executive Summary

Purpose of Report

This report provides an overview of the study findings and recommendations for Gordon Street Improvements (between Edinburgh Road and Lowes Road) Schedule 'B' Municipal Class EA.

Key Findings

Traffic volumes on Gordon Street have increased over the years and will continue to increase with ongoing redevelopment and intensification. The peak hour left-turn traffic often interferes with and blocks through traffic due to the absence of turning lanes at numerous driveways and the insufficient storage lengths at intersections of Edinburgh Road and Arkell Road.

The delays and left-turn capacity problems caused by this traffic condition may be addressed by providing a continuous two-way left-turn lane between Edinburgh Road and Lowes Road, and consequently improving the overall mobility and safety on Gordon Street. This intended improvement to mobility will also support transit operations along Gordon Street, a major transit spine.

There is also an opportunity to undertake localized operational improvements and enhance the existing walking and cycling facilities.

Five alternatives, as well as a Do Nothing alternative, were developed and presented to the public at the first Public Information Centre (PIC) in October, 2019. These alternatives were further refined based on the feedback received from the public and stakeholders, and was expanded to six alternatives at the second PIC in February, 2020 with additional considerations for active transportation. The "Do Nothing" and the six alternatives include:

- Do Nothing

- Alternative 1 - widen equally about existing centreline with a 4 m two-way left-turn lane;
- Alternative 2 - widen equally about existing centreline with a 5 m two-way left-turn lane;
- Alternative 3 - widen equally about existing centreline with a 4 m two-way left-turn lane and 3 m multi-use paths;
- Alternative 4 - widen road on west side with a 4 m two-way left-turn lane and 3 m multi-use paths;
- Alternative 5 - widen equally about existing centreline with a 4 m two-way left-turn lane and 1.8 m separated bike lanes; and
- Alternative 6 - widen equally about existing centreline with a 4 m two-way left-turn lane and 1.8 m off-street cycle tracks.

The evaluation process identified Alternative 4 as the preferred alternative, which features a two-way left-turn lane with multi-use paths on both sides of Gordon Street between Edinburgh Road and Lowes Road, and a queue jump / by-pass bus lane in the northbound direction at the Arkell Road intersection.

The EA study also recommends extending the multi-use paths to Landsdown Drive.

Financial Implications

Based on the preliminary design, the cost estimated by City staff to design and construct the preferred alternative is \$4,019,000 (excluding HST) including road construction, utility relocation, property acquisition, and engineering costs on Gordon Street between Edinburgh Road and Lowes Road. The construction cost will be refined through the detailed design and will be presented in the City's Capital Budget Forecast.

Report

Background

Gordon Street is an important arterial road running in a north-south direction with a posted speed of 50 km/hour north of Hands Drive and 60 km/hour south of Hands Drive to Clair Road. Gordon Street carries approximately 27,000 vehicles per day north of Arkell Road and 23,000 vehicles per day south of Arkell Road (as of 2016 traffic counts) and has a right-of-way of 30 metres.

In 2003, following the 2001 study "Gordon Street Wellington Road 46 Class Environmental Assessment," Gordon Street from Harts Lane to Clair Road was widened from 2 lanes to 4 lanes in an effort to accommodate the anticipated increase in traffic volume. The road widening was completed as an urban cross-section with bike lanes, sidewalks and upgraded underground services.

In 2009, the City's Official Plan Amendment 39 identifies Gordon Street south of Stone Road as an intensification corridor. Since then, a number of redevelopment and intensification projects have taken place abutting Gordon Street including a concentration between Edinburgh Road and Lowes Road. Gordon Street will continue to experience development growth with a number of properties currently in various stages of preparation for redevelopment and intensification in the surrounding area.

Study purpose

The purpose of the Environmental Assessment (EA) study is to investigate the need for safety and operational improvements and traffic management for Gordon Street between Edinburgh Road and Lowes Road, and recommend a preferred alternative to identified problems. The study area is provided in Attachment-1. The City of Guelph awarded this EA project to IBI Group Inc. in 2018, following the City's procurement process.

Problem and Opportunity

Traffic volumes on Gordon Street have increased over the years and will continue to increase with ongoing redevelopment and intensification. The peak hour left-turn traffic often interferes with and blocks through traffic due to the absence of turning lanes at numerous driveways and the insufficient storage lengths at intersections of Edinburgh Road and Arkell Road.

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The EA study also recommends extending the multi-use paths to Landsdown Drive.

Public Notice and Engagement

The Notice of Commencement, and Notices of PICs were published in the Guelph Mercury and posted on the City's website. Notices were also delivered / mailed to over 800 property owners within and around the Study Area, and mailed to identified agency, stakeholder group, and Indigenous community representatives. In addition, mobile signs were set up on Gordon Street at the both ends of the study area prior to PICs.

Two PICs were held during the study to present study findings to the public and receive public comments. Both PICs were held in the Salvation Army Guelph Citadel & Nursery School (1320 Gordon Street). Questionnaire surveys and location-based comments were collected during and following the events.

Public Information Centre #1:

The first PIC was held on October 1st, 2019. The PIC presented the Class EA study, existing and future conditions, introduction of five alternatives, and a summary of the preliminary considerations. A total of 52 individuals were in attendance, of which 48 signed in. A total of 48 comments were collected at the PIC and afterwards via emails.

Based on the input from comments received through the questionnaire survey, it is understood that the community considered turning vehicles into properties and stopping through traffic as a top concern. This is followed by the concern over through traffic being delayed by turning vehicles at the intersections. Of the five alternatives that were presented in the first PIC, Alternative 4 is proven to be the most popular one.

Public Information Centre #2:

The second PIC was held on February 20, 2020 to present the preferred alternative for the study. Information was presented on how the preferred alternative was determined including additional design options (modified Alternative 1 and additional Alternative 6) and alternative evaluation. A total of 49 individuals were in attendance, of which 45 signed in. A total of 44 comments were collected at the PIC and afterwards by emails.

Of the respondents that expressed a preference, approximately 70% support the preferred design Alternative 4. The results of the survey revealed the community's preference to moving pedestrians further away from traffic, keeping pedestrians and cyclists separate, and widening equally on each side of the road.

Consultation with Indigenous communities:

First Nations were identified at the start of the study, in coordination with the Ministry of the Environment, Conservation and Parks, and Ministry of Indigenous Affairs, and maintained over the course of the study. The First Nations were provided all formal notices, including invitations to meet directly and to attend the PICs.

The identified First Nations include a) Six Nations of the Grand River Territory; b) Haudenosaunee Confederacy Chiefs Council; and c) Mississaugas of the New Credit First Nation (MCFN). MCFN has a low level of concern about the project. As per MCFN's request, City staff will notify MCFN of any future environmental and / or archaeological assessment fieldwork.

Agency consultation:

Various agencies were contacted and provided with all formal notices, as part of the consultation program for this study. These included:

- Federal Department of Fisheries and Oceans;
- Ministry of the Environment, Conservation and Parks (MECP);
- Municipal Class EA (West Central Region), EA notification;
- Ministry of Indigenous Affairs;
- Ministry of Natural Resources and Forestry;
- Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI);
- Infrastructure Ontario;
- Upper Grand District School Board (UGDSB);
- Wellington Catholic District School Board; and
- Grand River Conservation Authority (GRCA).

MECP, UGDSB and GRCA have expressed interests in keeping on the mailing list. MHSTCI notified that at 1453 Gordon Street, if the excavation won't go deeper than the previous construction then there is no need for a cultural heritage assessment.

Utility consultation:

Various utility agencies were contacted and provided all formal notices, as part of the consultation program for this study, including: Hydro One Networks; Alectra Utilities (formerly Guelph Hydro); Enbridge Gas (formerly Union Gas); Rogers; Bell Canada; COGECO Cable Solutions; and Imperial Oil SPPL.

Local stakeholders:

Local stakeholder groups were identified at the start of the study, in coordination with the City of Guelph and maintained over the course of the study. The stakeholders were provided all formal notices, including invitations to the PICs. Identified stakeholders include:

- Guelph Coalition for Active Transportation (GCAT);
- Rickson Ridge Neighborhood Group;
- Guelph Chamber of Commerce; and
- Speed River Cycling Club.

Existing environmental conditions

The Environmental Impact Study (EIS) area comprises Gordon Street between Landsdown Drive and Lowes Road and adjacent lands up to 120m from the Gordon Street right-of-way. This EIS study area is considered mostly urbanized but contains Significant Natural Areas, including a portion of the Hanlon Creek Swamp Provincially Significant Wetland (PSW), Significant Woodland, and their associated buffers west of Gordon Street and south of Edinburgh Road. A 20m wide Ecological Linkage has been preserved across multiple properties, connecting the Torrance Creek Swamp PSW, located east of Gordon Street, and Hanlon Creek Swamp PSW, spanning Gordon Street north of Arkell Road. Two City-mapped Deer Crossing locations are identified on Gordon Street, one in line with the Ecological Linkage and one just south of the Edinburgh Road intersection. Collectively, the PSW, Significant Woodland, their buffers, and the Ecological Linkage represent the extent of the City of Guelph's Nature Heritage System (NHS) within the EIS study area.

Existing and future transportation conditions

The Traffic Impact Study is included in Attachment-6.

Traffic:

Generally the current PM peak hour traffic volume is heavier than the AM peak hour traffic volume. In the PM peak hour at the Edinburgh Road intersection, the eastbound right and southbound through/right traffic volume is approaching capacity, causing congestion. The queue for the northbound left-turn is exceeding the available lane storage, causing delays for the northbound through traffic.

Gordon Street at Arkell Road is operating with delays: the northbound through / right traffic volume is approaching capacity and the southbound left vehicles are extending beyond the available lane storage, causing delays for the southbound through traffic.

The above mentioned traffic congestion and deficiency in turning lane storage are expected to continue and worsen in the future as the population grows and Gordon Street intensifies. Without improvements, it will become more difficult for traffic turning out from side streets or private driveways onto Gordon Street, in particular for left-turning vehicles due to limited gaps in the main street traffic flow.

With future plans to improve the Hanlon Expressway, it is expected that some of the north-south traffic will be diverted from Gordon Street and Edinburgh Road, resulting in reduced through and turning traffic. However the problem between through traffic and turning traffic is anticipated to remain without improvements.

Road safety assessment:

A review of the collision history data revealed that the most common impact type for the study area was rear-end collisions. This is common for a major arterial road with multiple driveways and insufficient turning storage at intersections.

Bus operation at the Arkell Road intersection:

Due to the highest boarding / alighting activities at the Arkell Road intersection near the rental apartments at 1291 Gordon Street, a queue jump / by-pass lane is being considered at the Arkell Road intersection, on the east side of Gordon Street for northbound buses. This location is suitable for the queue jump / by-pass lane due to the traffic being busiest on this stretch of Gordon Street, and the available right-of-way present on the east side of Gordon Street at Arkell Road.

This lane configuration would improve transit operations by giving advance green phasing to buses and allowing buses to proceed through the intersection ahead of general traffic. The receiving lane on the far side of the intersection also functions as a bus bay, and can accommodate two buses.

Landsdown Drive to Edinburgh Road:

Additional consideration was given to related transitional impacts in the stretch of Gordon Street from Edinburgh Road South northerly to Landsdown Drive. It was concluded from the study that the two-way left-turn lane is not required north of Edinburgh Road South due to the following reasons:

- On the east side of Gordon Street, the southbound left-turn traffic volumes are relatively low for existing scenarios. As identified in the City's "Gordon Street

Intensification Corridor Concept Plan,” existing driveways to the single detached houses will be closed and Valley Road will be blocked for auto traffic;

- Future development plans require Edinburgh Road to be extended east of Gordon Street to create a 4-leg intersection. Southbound traffic on Gordon will be able to access the development by an exclusive left-turn lane at Edinburgh Road South;
- On the west side of Gordon Street, there are only two private driveways just north of Edinburgh Road. Exclusive northbound left-turn lanes could be provided to access these two developments; and
- The current northbound left-turn lane at Landsdown Drive is sufficient to store left-turn traffic under existing and future scenarios.

This concept is illustrated in Attachment-5.

Evaluation of Alternatives

Summary of alternative:

An evaluation of several alternatives was conducted to address the EA opportunity statement. Concepts for each alternative are presented in Attachment-2. A detailed summary of the alternative analysis is presented in Attachment-3. Five alternatives were developed and presented to the public at the first PIC in October, 2019, including “Do Nothing” alternative. These alternatives were further refined based on the feedback received from the public and stakeholders, and was expanded to six alternatives with additional considerations for active transportation. These six alternatives were presented at the second PIC in February 2020. The following is the list of “Do Nothing” and the six alternatives.

- Do Nothing
- Alternative 1 - widen equally about existing centreline with a 4 m two-way left-turn lane;
- Alternative 2 - widen equally about existing centreline with a 5 m two-way left-turn lane;
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- Alternative 6 - widen equally about existing centreline with a 4 m two-way left-turn lane and 1.8 m off-street cycle tracks.

The “Do Nothing” alternative was eliminated because it doesn’t provide solutions to meet the study objectives, and it doesn’t address the turning related delay and collision concerns. The “Do Nothing” alternative was not supported by the public responding to the first PIC.

Evaluation:

- An evaluation of these six design alternatives and the Do Nothing alternative was completed to evaluate traffic capacity, operations and safety; natural environment; socio-cultural environment; economic environment; and public opinion.
- Results of the evaluations are shown on the tables in Attachment-3. Based on this evaluation, the preferred alternative (Alternative 4) was presented to the

public at the second PIC, and there was a high level of support (approximately 70% of all public feedback) for this alternative.

- Alternative 4, as the preferred alternative, features widening road on the west side of Gordon Street to accommodate a two-way left-turn lane with multi-use paths on both sides of Gordon Street between Edinburgh Road and Lowes Road, and a queue jump / by-pass bus lane in the northbound direction at the Arkell Road intersection.

Preferred Alternative:

Alternative 4 was selected as the preferred alternative for the following reasons:

- It separates cyclists from vehicular traffic, enhancing safety and comfort;
- It moves cyclists behind bus stops, avoiding conflicts with buses and boarding or alighting passengers;
- It maintains the sidewalks for pedestrians;
- It has limited social environment impacts;
- It has the second least amount of private property impacts;
- It requires the least number of utility relocations;
- It has the lowest capital cost; and
- It was the most preferred by the public and stakeholders at the first and second PICs, aligning with the evaluation.

Cost Estimates:

The following table provides a summary of the cost estimated by City staff for the preferred alternative (Alternative 4) on Gordon Street between Edinburgh Road and Lowes Road. Detailed cost estimate information for this alternative as well as the other alternatives evaluated is provided in Attachment-6.

Description	Estimated Cost
Road Construction (including Active Transportation and Storm Sewer)	\$2,345,000
Utility Impacts/Relocations	\$1,000,000
Property Acquisitions	\$150,000
Engineering and contingency	\$524,000
Total Project Construction Cost	\$4,019,000 (excluding HST)

Environmental impacts

The following environmental impacts of each of the six alternatives were evaluated:

- Aquatic Habitat, Fisheries and Surface Water
- Terrestrial Habitat (Natural)
- Floodplain
- Wetlands
- Trees (Landscaping)
- Wildlife
- Property Contamination; and

- Stormwater Management.

Natural Heritage limits are presented in Attachment-4. The majority of these criteria were determined to have an equally negligible effect among the six alternatives with respect to potential for negative impact. The only criterion that differed among the design alternatives was the number of tree removals. An estimate of 14 tree removals is associated with the preferred Alternative 4. Further details pertaining to the environmental analysis are provided in Attachment-6.

Financial Implications

A preliminary design was prepared for Alternative 4 and is presented in Attachment-5. Based on the preliminary design, the cost estimated by City staff to design and construct the preferred alternative is \$4,019,000 (excluding HST) including road construction, utility relocation, property acquisition, and engineering costs on Gordon Street between Edinburgh Road and Lowes Road. The construction cost will be refined through the detailed design. The estimated costs to design and construct this alternative will be presented in the City's Capital Budget forecast.

Consultations

As detailed above, two rounds of public consultation were undertaken with the community to gain feedback related to the alternatives. In addition to public consultation, input was received from various stakeholders as listed in the body of this report.

Strategic Plan Alignment

Priority: Navigating Our Future

Directions:

- Provide attractive, affordable and reasonable transportation options for everyone
- Improve local transportation and regional transit connectivity

Alignment:

The proposed improvements to Gordon Street contribute to meeting the "Navigating Our Future" priority by improving connections to workplaces in Guelph, investing in and promoting active transportation, and by improving the safety, efficiency and connectivity of the whole transportation system.

Attachments

Attachment-1 Study Area

Attachment-2 Alternatives

Attachment-3 Alternative Evaluations

Attachment-4 Natural Environment Constraints

Attachment-5 Preliminary Design Plans

Attachment-6 EA Report

Attachment-7 EA Appendix A PIC 1 Summary

Attachment-8 EA Appendix A PIC 2 Summary

Attachment-9 EA Appendix B Environmental Assessment

Attachment-10 EA Appendix B Tree Inventory Preservation Plan

Attachment-11 EA Appendix C Traffic Impact Study

Attachment-12 EA Appendix D Alternative Evaluation

Attachment-13 EA Appendix E Estimated Capital Costs

Attachment-14 EA Appendix F Preliminary Design Drawings

Departmental Approval

Consultations were carried out with staff from the following City of Guelph service areas:

- Transportation Services
- Transit Services
- Environmental Planning
- Landscape Planning
- Policy Planning and Urban Design
- Heritage Planning
- Development Engineering
- Design and Construction Engineering
- Operations
- Community Engagement
- Corporate Communications

Staff from Planning Services expressed their wish to implement enhanced off-street pedestrian and cyclist facilities due to the planned intensification and associated increase in pedestrian traffic. This will be addressed through the detailed design with options such as a buffer within the multi-use path to separate pedestrians and cyclists and wider bike lanes where feasible.

Report Author

Gwen Zhang, P.Eng., Transportation Planning Engineer

This report was approved by:

Terry Gayman, P.Eng.

General Manager/City Engineer, Engineering and Transportation Services

Infrastructure, Development and Enterprise Services

519-822-1260 extension 2369

terry.gayman@guelph.ca

This report was recommended by:

Kealy Dedman, P.Eng., MPA

Deputy Chief Administrative Officer

Infrastructure, Development and Enterprise Services

519-822-1260 extension 2248

kealy.dedman@guelph.ca