



DEVELOPMENT & INFRASTRUCTURE SERVICES – ENGINEERING SERVICES
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June 16, 2014

**DEVELOPMENT & INFRASTRUCTURE SERVICES REPORT
ENGINEERING SERVICES 2014-37**

TO: Committee of the Whole

SUBJECT: Queen/Parkview (east leg) – All-way Stop Review Update and Safety Audit Report
Town Infiltration Study – Ward 5 (north half)
File No.:T08 T.30 Queen

ORIGIN: Director, Engineering Services

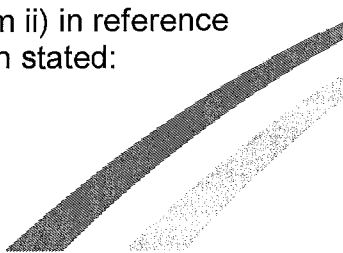
RECOMMENDATIONS

THAT Development and Infrastructure Services Report – ES2014-37, dated June 16, 2014 regarding Queen/Parkview (east leg) – All-way Stop Review Update and Safety Audit Report and the Traffic Infiltration Study – Ward 5 (north half), be received and the following recommendation(s) be adopted:

- 1. THAT an edge line as described in the IBI Group report as being a required improvement be implemented in 2014;**
- 2. AND THAT vegetative trimming be undertaken to enhance sight lines in the recommended area in 2014;**
- 3. AND THAT, if vegetative trimming is not completely effective, turning restrictions be considered;**
- 4. AND THAT if needed, the larger dollar value enhancements be considered as part of the parks and trails program for enhancing Haskett Park;**
- 5. AND THAT the road section continue to be monitored, and that an O-D study (license plate trace) be undertaken for Queen Street after the completion of the vivaNext construction on Davis Drive.**

BACKGROUND

At its regular meeting on Monday December 2, 2013, Town Council adopted item ii) in reference to Development and Infrastructure Report – Engineering Services 2013-52 which stated:



“AND THAT a further report be brought back on the items for consideration within the capital budget for 2014 or 2015 listed on page 4 of Development and Infrastructure Services Report ES2013-52 dated November 13, 2013 under the heading “Other Methods”.

Since Town staff has been reviewing this area over a significant time and has produced several reports, it was determined that the best course of action would be to retain a transportation consultant who specializes in transportation safety reviews to provide an independent professional opinion and undertake a review of the entire section of Queen Street from Parkside Drive to Lorne Avenue. The consultant was supplied with all previous information available and was directed to provide a report to recommend important and immediate safety improvements, as well as future safety enhancements if necessary. An estimate of associated costs was also requested of the consultant.

Also as part of the direction from Development and Infrastructure Report –Engineering Services 2013-44, dated September 30, 2013, Town staff undertook a license plate trace study of the northern half of Ward 5 to determine if there were any infiltration patterns on streets other than Queen Street and Eagle Street, as noted in this report.

COMMENTS

Safety Report

IBI Group was retained by Engineering Services to undertake a safety review of Queen Street from Parkside Drive to Lorne Avenue. The main focus of the review was the east intersection of Parkview Crescent and Queen Street. The consultant assessed the existing conditions, collision history, traffic volumes, infiltration, operating speeds and previous enhancements in the subject section of road. The mitigation measures considered included: all-way stops; community safety zones, speed humps (horizontal deflections); narrowings of all types (neckdowns, curb extensions, chokers, medians); and education and enforcement.

The IBI recommendations have been circulated to Council and Staff and are available at the Clerk’s office for the Public to obtain. A summary of the IBI report final recommendations is as follows:

Required Measures

1. Edge Line: The Town used an edge line to highlight the Queen/Parkview intersection, and the recommendation is to take this edge line (on both sides) through the curved section to better demarcate the roadway. It is recommended that this be undertaken in 2014. This is expected to cost approximately \$8,500.
2. Vegetation Trimming: As noted in the report, the vegetation to be trimmed in order to enhance the sight lines at the intersection is predominantly on private property. Town staff will contact the homeowners to determine the next steps. It is recommended that this be undertaken in 2014. This is expected to cost under \$5,000.

Enhanced Measures

3. Turn Restrictions at the Queen/Parkview east intersection: If trimming of the vegetation to enhance the sight lines as per IBI's report is determined to be ineffective, then it is recommended that Turn Restrictions (i.e. "Right-in-right-out") at the east intersection of Parkview Crescent and Queen Street be recommended in the Fall of 2014, but only if necessary and if there is sufficient public support. This is expected to cost approximately \$5,000.
4. Curb extensions/semi-mountable median: These enhancements work well together and should be implemented in tandem, but not until a path system is created from Haskett Park on the south side of Queen Street to an improved Haskett Park on the north side of Queen Street. In the proposed Active Transportation Plan (OPA #11), the path system for Haskett Park towards the north is recommended for the short-term, which is from 1 to 5 years. The enhanced measures could be included as part of the Haskett Park project. These are expected to cost a total of \$390,000 (\$90,000 for the semi-mountable median and \$300,000 for the curb extensions).
5. Pavement Resurfacing: It is recommended that this be considered if and when the Town proceeds with the implementation of item #4 above. The cost would depend on the extent of work, but is considered to be a medium to high cost.
6. Continued Enforcement and Speed Radar: Town staff has contacted York Region Police regarding vehicle speeds. They have been asked to consider making this area a priority enforcement zone. The Town will continue to allocate Speed Management Program resources (pole-mount and speed trailers) on Queen Street periodically, particularly during the construction of Davis Drive.
7. More Detailed Origin-Destination (O-D) Study: The O-D Study or License Plate Trace Study commissioned by the Town (and further detailed below), provided a general snapshot of the area. It is recommended that, once the vivaNext construction on Davis Drive is completed, a more detailed O-D study of trips on Queen Street be undertaken. Such a study could include "dwell times" (i.e. a measure of the amount of time spent in the neighbourhood) to determine what percentage of the traffic infiltration is actually due to people making normal trips within the local community as part of their regular day-to-day activities (e.g., picking up children from daycare/school).

License Plate Trace Study

The Town conducted a license plate trace (O-D) study for the AM and PM peak hours in the north half of Ward 5. There were concerns raised that the previous O-D study which was conducted by York Region did not take into account possible infiltration on local streets and other minor collector streets. The License Plate Trace Study was conducted on April 2014 and looked at 11 stations.

Appendix B illustrates the station locations. The purpose was to determine general infiltration trends.

The Town's Transportation Management Policy uses 20% as a threshold at which mitigation may be required. However, if the percentage is applied to a very small number of vehicles, then one or two vehicles could equate 20% or more of the total number of vehicles.

The following table outlines the traffic infiltration paths that are at 20% or greater and the respective number of vehicles that travelled through the target area.

AM Peak Hour			
Inbound Road	Outbound Road	Volume	Percentage
Carol Avenue	Millard Avenue	32	23%
Gladman Avenue	Park Avenue	12	23%
Millard Avenue	Park Avenue –	11	21%
Gladman Avenue	Church Street	2	22%
Millard Avenue	Carol Avenue	9	24%
PM Peak Hour			
Inbound Road	Outbound Road	Volume	Percentage
Lorne Avenue	Millard Avenue	24	21%
Queen Street	Wilstead Avenue	3	21%
Park Avenue	Wilstead Avenue	4	29%
Carol Avenue	Lorne Avenue	8	29%

The AM peak results indicate an infiltration route between Millard Avenue and Carol Avenue. This is probably to by-pass the Yonge/Eagle intersection. The remaining paths have low volumes and are more in an east-west direction, which would point to more local community traffic from west of Yonge to the Main Street area.

The PM peak results are low volume as well, and the trend is a little more scattered. The two outbound counts from Wilstead may have been accessing Newmarket Plaza. The Lorne to Millard and Carol to Lorne are probably minor infiltration routes to avoid Davis Drive.

Overall, the study does not indicate overwhelming infiltration through the area or on the local streets.

PUBLIC CONSULTATION

There was no public consultation with the drafting of this report. The complete IBI Group report is available from the Town Clerk's office.

BUSINESS PLAN AND STRATEGIC PLAN LINKAGES

- Well-planned and connected...strategically planning for the future to improve information access and enhance travel to, from and within Newmarket.

HUMAN RESOURCE CONSIDERATIONS

No impact to current staffing levels.

IMPACT ON BUDGET

Operating Budget (Current and Future)

No impact to the Operating Budget.

Capital Budget

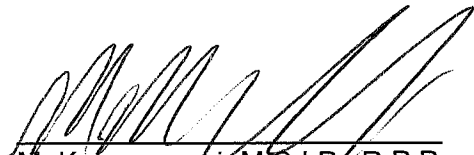
The 2014 recommendations (tree trimming, line painting) will be under \$14,000.00 and, if approved by Council, will be drawn from the Traffic Management budget.

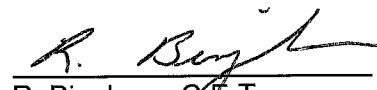
The large value enhancement items will cost \$390,000.00, and will be subject of future reports and approvals in association with the trails and parks enhancements.

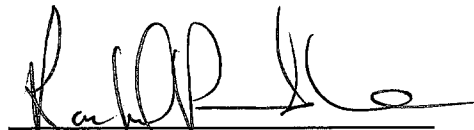
CONTACT

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R. Prentice, Commissioner,
Development & Infrastructure Services

Appendix A

7 Recommendations

It is recommended that the following required enhancements be implemented:

- Vegetation Trimming – Low Cost (under \$5,000); and
- Reflective Edge Lines – Low Cost (approximately \$8,500).

It is recommended that the following optional enhancements be considered:

- Semi-Mountable Median – Medium Cost (approximately \$90,000);
- Curb Extensions – High Cost (approximately \$300,000);
- Turn Restrictions – Low Cost (under \$5,000);
- Continued Enforcement and Speed Radar – Low Cost (under \$5,000); and
- Pavement Resurfacing – Variable Cost, depending on extent of work.

It is also recommended that:

- A detailed traffic infiltration study should be carried out to determine the extent of traffic infiltration along Queen Street, and if necessary, enhancements that would be appropriate in preventing such infiltration should be investigated;
- The required enhancements of vegetation trimming on private property and reflective pavement edge lines are undertaken as soon as possible. (Negotiations with property owners will likely be required before the trimming can take place.);
- If the curb extensions and/or a mountable/semi-mountable median are to be constructed, a detailed design effort be initiated; and
- If the pavement resurfacing, curb extensions, and a mountable/semi-mountable median are to be constructed, the work be coordinated so that all construction and resurfacing can occur at the same time, minimizing the disruptions to local residents.

Appendix B

