

F.R. Berry & Associates

TRANSPORTATION PLANNING CONSULTANTS

660 Inverness Avenue

London, Ontario N6H 5R4

Tel: (519) 474 2527 Toll Free: 1 888 665 9192 Email: fyberry@rogers.com

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Our Ref. 1620

Ms. J. Lassaline, BA, MCIP, RPP
Principal Planner
Lassaline Planning Consultants Inc.
1632 County Road 31
St. Joachim ON
N0R 1S0

Dear Ms. Lassaline:

**RE: FUTURE TRAFFIC OPERATION
MAIN STREET EAST AND JASPERSON DRIVE, KINGSVILLE**

You have asked me to comment on some concerns raised by the Town with respect to future traffic operations on Main Street East and Jasperson Drive. These concerns relate to two general areas: turning movements on Main Street between Jasperson Drive and the new shopping centre and southbound left turns on Jasperson Drive.

Main Street East

In my report on the Kings Villa development, I recommended against a full turns access to the site off Main Street because of potential conflicts in the existing two-way left turn lane. I concluded that a "pork chop" island limiting access to the Kings Villa site to right turns only was the only feasible solution. Without a barrier median, a directional island is not totally effective in eliminating left turns. However, a barrier median on Main Street would eliminate left turns to and from the existing commercial sites.

The problem on Main Street east of Jasperson Drive is the proximity of the commercial driveways. Figure 3 in my report shows the approximate location of these driveways. The spacing does not meet accepted geometric design standards. We only made traffic counts at the shared Esso/Tim Hortons access. An analysis of traffic operations at this access indicates that, as through traffic volumes on Main Street increase, the level of service will deteriorate to unacceptable levels (level of service F). This in turn, will likely lead to an increase in accidents.

Another consideration would be any future expansion of the Otis shopping centre. I understand that there is still about 30 000sf to be developed of the original plan,



which I took into account in my projections. In addition, I understand that the Otis Group may expand to the west where there are existing residential uses.

I suggest that some form of rationalization of the commercial accesses should be undertaken. This could be a reduction in the number, i.e. more shared accesses, or a designation of some accesses as one-way entrances or exits. A study to determine the optimum form of rationalization should be based on traffic movements at each access as well as accident records for this section of Main Street. Other options that could be looked at on Main Street east of Jasperson Drive are pavement widening (five lanes?), short sections of barrier median and auxiliary right turn lanes.

Jasperson Drive

The existing 20 metre left turn lane on southbound Jasperson Drive at Main Street is too short. Under existing conditions (Table 3 in my report) the peak hour vehicle queue length can be as much as 40 metres based on the Saturday traffic count. This means that the left turn queue would spill over into the through lane. Under projected traffic conditions, the southbound queue could extend to the Zehr's driveway but it is likely that access to and from this driveway and to and from the Libro driveway would only be affected for short periods of time in the peak hours.

The existing left turn lanes serving traffic entering Zehr's and Libro and also the proposed Kings Villa all have adequate storage lengths.

One way of decreasing queue lengths on the southbound approach to Main Street would be to increase the amount of green time allocated to this approach. However, this would increase the queue lengths on the Main Street approaches. Table 3 shows that the existing queue length on the westbound approach is about 185 metres. If this is increased, it would affect the operation of the commercial accesses.

One other option would be to widen Jasperson Drive to provide a right turn lane from a point north of the Zehr's access to Main Street. Since about one-third of the total southbound traffic volume in the peak hours turns right at Main Street, this should significantly increase the capacity of the approach.

I understand that there is some discussion over the use of the proposed Remark residential subdivision as a school site. The traffic impact study done for Remark (R.C.Spencer Associates, December, 2013) projected about 100 vehicles generated by this development passing through the intersection of Main Street and Jasperson Drive in the morning peak hour. An elementary school with 400 students would generate about 180 vehicle trips in the morning peak hour. If two-thirds of these trips were assigned to the intersection, the impact would be approximately equivalent to



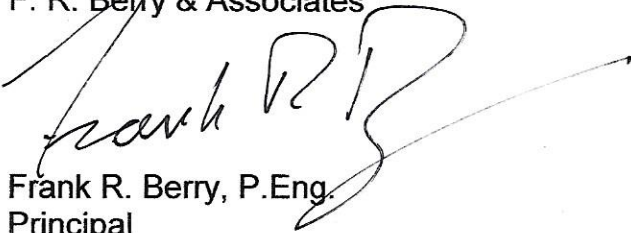
the proposed subdivision. The afternoon peak hour impact would be less since the school peak hour is generally between 2.30pm and 3.30pm.

Summary

I would suggest that the Town undertake additional studies on Main Street and Jasperson Drive to assess in more detail possible solutions to the concerns expressed above. These studies should take into account future growth potential and also the impact of infrastructure changes on existing commercial uses.

Very truly yours

F. R. Berry & Associates

A handwritten signature in black ink, appearing to read 'Frank R. Berry', with a long, sweeping horizontal stroke extending to the right.

Frank R. Berry, P.Eng.
Principal

