
Memorandum

To: John Smit (City of Ottawa)
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From: Mark Baker (Delcan)

Date: November 3, 2009
Project: TO3031TOR00

Re: Central Canada Exhibition Relocation
Transportation Impact Assessment Update #3

Context

This technical memo provides an update of the transportation impacts of proposed relocation of the Central Canada Exhibition (CCE) from Lansdowne Park to the more rural site located on the lands in the northwest quadrant of the Albion/Rideau intersection. The following is a timetable of previous transportation related work:

- Original Traffic Impact Study (TIS) prepared in June 2002;
- TIS Update #1 prepared in October 2002 in response to City/public comments; and
- TIS Update #2 prepared in July 2004 to reflect substantial changes to the proposed Site Plan.

1.0 Approach

Since the completion of the TIS Update #2 in year 2004, a number of key factors contributing to this transportation assessment have transpired, including the following:

- Removal, in 2007, of the north-south “through traffic” restrictions at the Albion/Lester intersection;
- Update of the City of Ottawa Transportation Master Plan (2008); and
- Completion of the Stage 2 Phase 3A and 3B Transportation Impact Study for the Findlay Creek Community (April 2009).

The update herein considers how the findings and recommendations contained with the previous transportation planning work are impacted by the most current area traffic counts, infrastructure projects identified in the current TMP, and recent major development proposals in the area. It is assumed that the proposed Site Plan for the CCE remains relatively unchanged from that evaluated in year 2004.

2.0 Analysis

Current Year Traffic Counts

The most current intersection turning movement counts were obtained from the City of Ottawa. Table 1 provides a summary of the road segment traffic volumes at three points in time, namely: years 2000-2002 prior to restrictions being introduced at the Albion/Lester intersection in June 2004; year 2007 prior to the removal of the restrictions in November 2007; and years 2008-2009 following the removal so the restrictions. It is important to recognize, however, that these annual counts represent one-day snapshots and are not necessarily indicative of the average day. Furthermore, some counts were conducted in late Spring (May-June), and others in mid-Summer (July-August).

The data indicates that on Albion Road between Rideau and Lester during the relevant PM peak hour, traffic volumes have increased by approximately 100 veh/h in the *peak direction* since 2002 (increases ranged between 130 veh/h south of Lester and 50 veh/h north of Rideau) and by 60 veh/h *two-way total* (increases ranged between 90 veh/h south of Lester and 35 veh/h north of Rideau). This implies a slight reduction in traffic volume in the off-peak direction. The peak direction volume increase of 100 veh/h represents an approximate 16% increase over 7 years, which equates to approximately 2% growth per annum and is therefore consistent with the background growth trend identified for Albion Road in the previous work.

Table 1: PM Peak Hour Traffic Volumes

| Road Segment | Traffic Volume (veh/h) | | | | | | | |
|--|------------------------|---------------|----------------|---------------|----------------|---------------|----------------------------|---------------|
| | Year 2000-2002(*) | | Year 2007 | | Year 2008-2009 | | Change (Current – 2002) | |
| | Peak Direction | Two-way Total | Peak Direction | Two-way Total | Peak Direction | Two-way Total | Peak Direction | Two-way Total |
| Albion Road | | | | | | | | |
| <i>south of Bank</i> | 660 | 1,060 | 450 | 800 | 470 | 800 | -190 | -260 |
| <i>north of Lester</i> | 450 | 800 | 160 | 290 | 360 | 680 | -90 | -120 |
| <i>south of Lester</i> | 790 | 1,240 | 790 | 1,130 | 920 | 1,330 | 130 | 90 |
| <i>north of RCR</i> | 840 | 1,200 | n/a | n/a | n/a | n/a | n/a | n/a |
| <i>north of Rideau</i> | 710 | 1,045 | 600 | 880 | 760 | 1,080 | 50 | 35 |
| <i>south of Rideau</i> | 660 | 980 | 630 | 900 | 760 | 1,020 | 100 | 40 |
| Bank Street | | | | | | | | |
| <i>west of Albion</i> | 1,380 | 2,235 | 1,420 | 2,270 | 1,470 | 2,200 | 90 | -35 |
| <i>east of Albion</i> | 1,220 | 2,000 | 1,390 | 2,270 | 1,280 | 1,970 | 60 | -30 |
| <i>north of Rideau</i> | 940 | 1,470 | n/a | n/a | 900 | 1,300 | -40 | -170 |
| <i>south of Rideau</i> | 1,200 | 1,740 | n/a | n/a | 1,100 | 1,580 | -100 | -160 |
| Leitrim Road | | | | | | | | |
| <i>west of Albion</i> | 135 | 230 | 390 | 560 | 510 | 710 | 375 | 480 |
| <i>east of Albion</i> | 180 | 310 | 420 | 620 | 490 | 710 | 310 | 400 |
| Rideau Road | | | | | | | | |
| <i>west of Albion</i> | 160 | 240 | 170 | 220 | 280 | 350 | 120 | 110 |
| <i>east of Albion</i> | 210 | 375 | 260 | 370 | 420 | 580 | 210 | 205 |
| *As per 2004 TIS: prior to Albion/Lester through restriction | | | | | | | | |

Also noteworthy is the significant growth in east-west travel on Leitrim Road and Rideau Road, and the decline in traffic volumes on Albion Road between Bank and Lester of several hundred vehicles per hour compared to year 2000-2002. The latter may be a reflection of travel patterns on this segment being permanently influenced by the "through movement" restrictions at Albion/Bank intersection (that were in place between year 2004 and 2007), or the recent introduction of several STOP signs along this stretch of roadway. Current afternoon peak hour, peak direction volumes on Bank Street and Albion Road immediately

north of their respective Lester Road intersections are 810 veh/h and 360 veh/h, respectively.

Transportation Master Plan

The current TMP indicates the widening of Bank Street from two lanes to four lanes between Leitrim and Findlay Creek as a Phase II project (2016-2022), and from Findlay Creek to Parkway as a Phase III project (2023-2031). Albion Road is not identified as a road widening project within the current TMP, although the current right-of-way protection for the roadway is 37.5 m which suggests it remains a candidate for widening beyond the year 2031 timeframe. Note that Albion Road (between Lester and Rideau) was identified as a road widening project (by 2021) within the former TMP. The decision was made during the preparation of the current TMP to only widen one of these two adjacent north-south arterials in order to provide sufficient capacity across the Leitrim Screenline by year 2031. Bank Street was selected on the basis of the existing four-lane cross-section north of Leitrim Road and its connectivity with the Provincial road network.

The Strandherd-Armstrong Bridge over the Rideau River will start construction in 2010 and will be completed in two years, and the extension of Earl Armstrong Road easterly to Bank Street is identified as a Phase III project (2023-2031). This link will result in new traffic patterns within southeast Ottawa.

The current TMP also includes the extension of rapid transit southerly to Leitrim Road and beyond, with a potential connection to the Macdonald-Cartier Airport. Current thinking is to provide light rail service (in the long term) within the existing rail corridor to as far south as the Riverside South Community and to provide a Park and Ride lot south of Leitrim Road and west of the Albion Road intersection. Findlay Creek residents will benefit greatly from the convenience of rapid transit adjacent to their community.

Findlay Creek Community

Recent transportation planning work for the Findlay Creek Community, which includes the Traffic Impact Study for Stage 2 – phase 3A and 3B Residential Development, indicates that additional connections to the adjacent arterial road network will be provided by in the coming years. One of those connections is the extension of Findlay Creek Drive westerly to Albion Road in 2010. This road extension is projected to add an additional 550 veh/h two-way traffic on Albion Road between Findlay Creek and Leitrim by year 2014. The resulting volume increases of traffic on Albion Road are expected to produce failure conditions at the Albion/Leitrim intersection until such time that Bank Street (south of Leitrim) is widened to four lanes and north-south traffic reassigned to Bank Street where road capacity will be available.

The current timing of the transportation infrastructure projects identified within the TMP may need to be modified as a result of area development pressures. This could include advancing the widening of Bank Street, or reintroducing the widening of Albion Road. The TMP will be revisited in year 2012-2013.

3.0 Central Canada Exhibition Site Access

It is very important to note that the CCE Relocation assessed in the 2004 study included a significant amount of permanent on-site facilities in addition to the relocated 11-day CCE. The permanent on-site facilities proposed at that time and included in the study were: a

4,865 ft² office/administration building, 40,000 ft² trade-show/convention space, a 27,000 ft² agricultural centre, a 5000 seat performance theatre and a 1,000 seat arena.

The analysis completed as part of the CCE Traffic Impact Study Update #2 indicates that with regards to the year-round facilities, the potential maximum traffic generation is 300 veh/h. For the full activities during the proposed 11-day annual summer event, the peak hour traffic generation of the site is expected to be as high as 1,350 veh/h two-way total.

Physical modifications (turning lanes) are required at each site driveway connection with Albion Road and Rideau Road. Given the 150 to 250 m spacing of the intersections (proposed and existing) and the required storage and taper lengths, the resulting proposed design will provide a three to four lane cross-section on Albion Road between Rideau Road and High Road. Traffic signals are not recommended initially at any location due to the short duration of the events at the CCE.

With regards to potential traffic increases on Albion Road, the proposed site development is projected to increase traffic volumes on Albion Road, between Leitrim Road and Lester Road, by 300 veh/h two-way total during the weekday and by 500 veh/h on a Saturday for the 11-days when the CCE is active.

4.0 Conclusions

Based on the foregoing analysis indicating that the current PM peak hour traffic volumes on Albion Road adjacent to the proposed CCE site are consistent with those indicated within the year 2004 study (with appropriate allowance for background traffic growth), the basic findings and recommendations of that report remain valid assuming the proposed Site Plan for the CCE is relatively unchanged in terms of land use intensity.

The most notable impact of the current analysis is the projected volume increases on Albion Road north of the proposed Findlay Creek extension resulting from on-going build-out of the Findlay Creek Community. This additional traffic from the Findlay Creek Community, coupled with general background growth resulting from other development further south, is expected to result in Albion Road (south of Lester) operating at capacity as a two-lane roadway during the peak hours within the next five years. During the 11-day period when the proposed CCE is fully active, additional traffic pressures will be placed on both Albion Road and Bank Street.

The most probably strategy to address this projected deficiency in north-south capacity is to accelerate the proposed widening of Bank Street as identified in the current TMP and/or re-introduce the widening of Albion Road in the subsequent update of the TMP.

