
BRIEFING NOTE

Jarvis Street Bike Lanes – Traffic Impacts

Background:

- At its meeting of May 25, 26 and 27, 2009 City of Toronto Council approved the Jarvis Street EA Study with changes to the recommendation to include bike lanes instead of the widening of the boulevards.
- The traffic analysis undertaken as part to the EA study indicated that a narrowing of Jarvis Street from five lanes to four lanes was feasible from a traffic perspective. The trade-offs were a modest increase in intersection congestion and delay. The increased travel time along Jarvis Street from Bloor Street to Queen Street was expected to increase from approximately 8 minutes to 10 minutes.
- Bike lanes were installed on Jarvis Street from Charles Street to Queen Street in July, 2010. The impact of the installation of bike lanes on Jarvis Street is being monitored and has focused on three areas: travel time, motor vehicle traffic counts and bicycle counts.

Key Points:

1. Travel Time – Charles Street to Queen Street East

- Change in travel time is an easily understood indicator of the overall increase in delay experienced on the Jarvis corridor.
- E.A. Study (Appendix B of Traffic Study) predicted that removing the bi-directional centre lane would result in a relatively small increase in travel times
 - travel time surveys conducted with five lanes varied between 6 to 8 minutes
 - modelling predicted an increase in travel time by about 1 minute
 - staff report indicated travel times expected to **increase by 2 minutes; from 8 minutes to 10 minutes**
- Travel time surveys were conducted soon after the implementation of the bike lanes (Aug/Sept 2010) to get an initial impression even though lighter traffic volumes were expected prior to Labour Day. Travel times (AM and PM) were all **under 8 minutes**.

- More representative travel time surveys were conducted in October, 2010 with the following results:
AM PEAK (7:00am-9:30am) – Southbound direction
 Average Travel Time: just over **6 minutes**
 Peak Travel Time: **9 minutes** (8:50am)
 Note: Increase consistent with conclusions of the EA study

PM PEAK (4:00pm to 7:00pm) – Northbound direction

Average Travel Time: just under **9 minutes**

Peak Travel Time: just under **14 minutes** (6:40pm)

Note: Travel times progressively increased with each run from just over 5 minutes to just under 14 minutes. This is a larger increase than predicted by the EA study.

- Initial field observations suggested that the steady increase in travel times in the PM Peak direction was likely due to delay/queuing related to the **northbound left turn at Gerrard/Jarvis**. This was supported by complaints received by the Traffic Operations Unit regarding delays and requests for better accommodation for the northbound left turns at this intersection.
- The Traffic Operations Unit completed a delay study for the Gerrard Street intersection in January, 2011. Implementation of a northbound advance phase is recommended for both the AM and PM peak periods to mitigate the delays created by the northbound left turns. A change of the controller/cabinet is required for implementing the northbound advance phase. This work will be completed in the summer of 2011.

2. Traffic Counts

- The traffic analysis conducted for the EA study estimated that 300 vehicles would be diverted from Jarvis Street in the peak directions with the removal of the centre changeable lane.
- Traffic counts after implementation of the changes were scheduled to verify this estimate and the level of impact predicted in the EA. Any significant deviation would help identify areas for possible further data collection and analysis.
- Intersection turning movement counts were conducted in Oct/Nov 2010 for 11 signalized intersections on Jarvis Street from Charles Street to Queen Street.
- A review of the data showed that generally the number of vehicles decreased as predicted. In the PM peak the northbound volumes generally decreased close to the levels predicted in the EA. In the AM peak the southbound volumes decreased but only by about half of the predicted decrease. Considering that the actual and predicted travel times in the southbound direction were consistent, this change was not considered significant.
- The Traffic Safety Unit has advised that a better indication of how traffic has stabilized is obtained 6-8 months after any change. Further counts are planned in the spring of 2011 which will include intersection turning movement counts and 24 hour mid-block counts.

3. Bicycle Counts

- Before/After bike counts were conducted in May (Before) and late October (After) 2010
- After counts were conducted later than desirable since the bike counters were being used for the Bicycle Cordon Count project
- 24 hour counts showed an increase in bike traffic of **approximately 30%**:
 - 228 before to 297 after (avg SB)
 - 149* before to 331 after (avg NB)

*data collected on a day with significant rainfall so was discounted in estimating increase. Scheduling re-count prior to installation was not possible due to G20)
- Bike traffic volumes vary widely according to season (i.e. typically lower bike volumes in October than in May) and it can take a full year or longer to attract a significant increase in bike trips along a route following the installation of new cycling infrastructure. Accordingly, additional bike traffic counts are planned for May 2011.
- The launch of the BIXI Toronto program in May 2011 will likely result in further increases in bike traffic along Jarvis Street over the next year. There will be eight (8) BIXI terminals located on or within one block of Jarvis Street between Bloor Street East and The Esplanade.

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