

MEMO / NOTE DE SERVICE

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TO :	Chair and Members of Transportation Committee	
DESTINATAIRE :	Président et membre du Comité des transport	
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DATE :	October 15, 2012 15 octobre 2012	
REF N ^o :	ACS2012-PAI-PGM-0250	
SUBJECT :	LAURIER AVENUE SEGREGATED BIKE LANES PILOT PROJECT UPDATE	
OBJET :	LE POINT SUR LE PROJET PILOTE DE PISTES CYCLABLES RÉSERVÉES SUR L'AVENUE LAURIER	

PURPOSE

This memorandum serves to provide an update on the segregated bicycle lanes that were implemented as a two-year pilot project on Laurier Avenue West between Bronson Avenue and Elgin Street on July 10, 2011.

BACKGROUND

On February 23, 2011 Council directed staff to implement segregated bicycle lanes on Laurier Avenue West between Elgin Street and Bronson Avenue along with the following actions (Ref N^o: ACS2011-ICS-PGM-0031):

- To undertake performance monitoring as part of the pilot project, including a Transportation Impact Assessment Report;
- To pursue a multi-use pathway for public use through the development application process at 422 Slater Street;
- To continue to pursue parking opportunities near Laurier Avenue West between Bay Street and Bronson Avenue;
- To consult with businesses and residents as required with a goal to resolve individual concerns related to the roadway design and access to commercial buildings.

On June 13, 2012 Council approved an amendment to the Zoning By-law to permit 10 additional public parking spaces on the former Ottawa Technical High School lands following requests for additional public parking at the western end of Laurier Avenue West.

DISCUSSION

Design Improvements

Following implementation of the Laurier segregated bicycle lanes on July 10, 2011, staff began monitoring public feedback with an aim to immediately implement minor design improvements on a case-by-case basis. Several minor adjustments have since been implemented, most within the first few months after the July 2011 opening. These adjustments have included the following:

- Five new additional on-street loading zones, all west of Lyon Street;
- Four new accessible on-street parking spaces on Laurier Avenue West;
- The replacement of concrete barriers with flex posts in select locations to improve access to buildings for Para Transpo and emergency vehicles;
- An increase in the on-street parking time limits on Gloucester Street from one to two hours between Bay Street and Bronson Avenue; and
- The installation of directional signs to off-street public parking as per Council Member Inquiry TRC 02-12.

In addition to the above, 10 new off-street public parking spaces near Laurier and Percy on the former Ottawa Technical High School lands is expected to be implemented in the Fall of 2012 pending completion of the legal agreement between the City and the Ottawa-Carleton District School Board.

Public Advisory Committee (PAC)

A Public Advisory Committee (PAC) was formally established in early 2012 with a mandate to provide on-going feedback about the project and to review the overall performance monitoring plan. PAC membership was solicited by way of flyers that were distributed to all mailing addresses and property owners along Laurier Avenue West and the immediately adjacent side streets.

The approximately 30-member committee was selected based on a block-by-block basis so as to ensure equal representation along the entire eight-block corridor. At least two representatives from each block are participating in the PAC, including all of the residential condominium associations east of Lyon Street and several employees who work on Laurier Avenue West. Additional members represent local Community Associations (Centretown Community Association, Dalhousie Community Association), Business Improvement Areas (Bank Street BIA), City Advisory Committees (Accessibility Advisory Committee, Seniors Advisory Committee, etc.), and other related organized groups (Citizens for Safe Cycling, Bay/Bronson Residents' Action Group for Fair Access to the Road).

The PAC has met twice as a group since its establishment and staff have had several additional one-on-one meetings with various PAC members. The first PAC meeting occurred in May 2012 with the objective to review and finalize the performance monitoring plan study design, which was subsequently completed in July 2012. The second PAC meeting occurred in September 2012 with the main objective to review specific survey tools, themes and questions for public feedback. A third PAC meeting is scheduled for May/June 2013 to review the data and public feedback gathered through the monitoring plan.

Performance Monitoring Plan

The study design for the performance monitoring plan identifies the objectives, deliverables, approach and methodology for monitoring the Laurier bike lanes. The monitoring plan and associated indicators were collaboratively developed and reviewed by the Public Advisory Committee (PAC) and an internal Technical Advisory Committee (TAC) that is comprised of City staff from various departments. Table 1 provides a summary of the various indicators identified in the monitoring plan. The complete performance monitoring plan study design is attached to this memorandum as a supporting document.

Table 1: Performance Monitoring Indicators

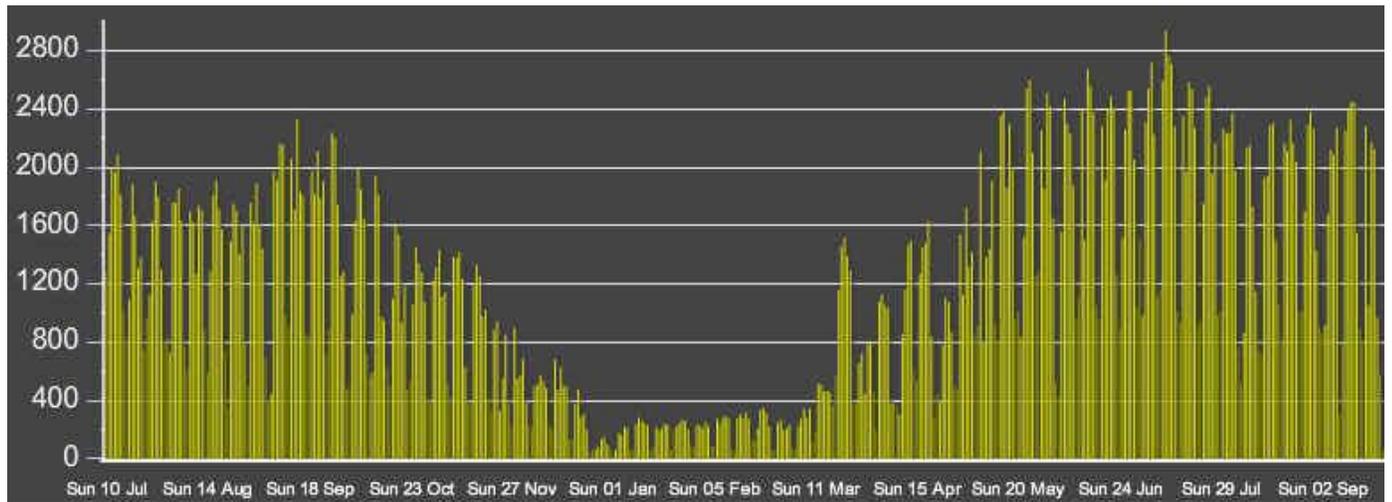
Indicator 1:	Cycling Modal Share Targets	Comparison of cycling volumes, user type (gender, age) and cycling trips into the downtown.
Indicator 2:	Motor Vehicle Operations	Comparison of intersection traffic operations (delay, Level of Service), traffic diversions and corridor travel times.
Indicator 3:	Road Safety Review	Comparisons of collision information and changes in by-law and traffic act infractions.
Indicator 4:	Parking/Loading/Stopping	Comparison of parking utilization rates, parking revenue and parking/stopping infractions.
Indicator 5:	Maintenance Operations	Comparison of additional maintenance costs associated with the bike lane.
Indicator 6:	Accessibility	Record of site specific areas with accessibility concerns/issues, including feedback from Para Transpo.
Indicator 7:	Emergency Services	Comparison of response times including feedback from Paramedics, Fire and Police.
Indicator 8:	Cycling Operations	Record of left turn bike box usage (frequency and proper use), frequency of cyclists outside bike lane and comparison of cycling volumes in winter.
Indicator 9:	Pedestrian Operations	Record of conflict potential in corridor through observations and video analysis.
Indicator 10:	Business Operations	Surveys of local businesses, clients and employees, including comparison of total person trips before and after bike lane implementation.
Indicator 11:	Effects on Residents	Surveys of residents through intercept, telephone and online sources.
Indicator 12:	User Clarity	Surveys of users including video analysis and summary of traffic infractions.

Key Preliminary Monitoring Results

Cycling Volumes

The number of cycling trips along Laurier Avenue West has significantly increased compared to before the bicycle lanes were implemented and continues to grow as shown in Graph 1.

Graph 1: Daily Bicycle Volumes on Laurier at Metcalfe (July 2011 to September 2012)

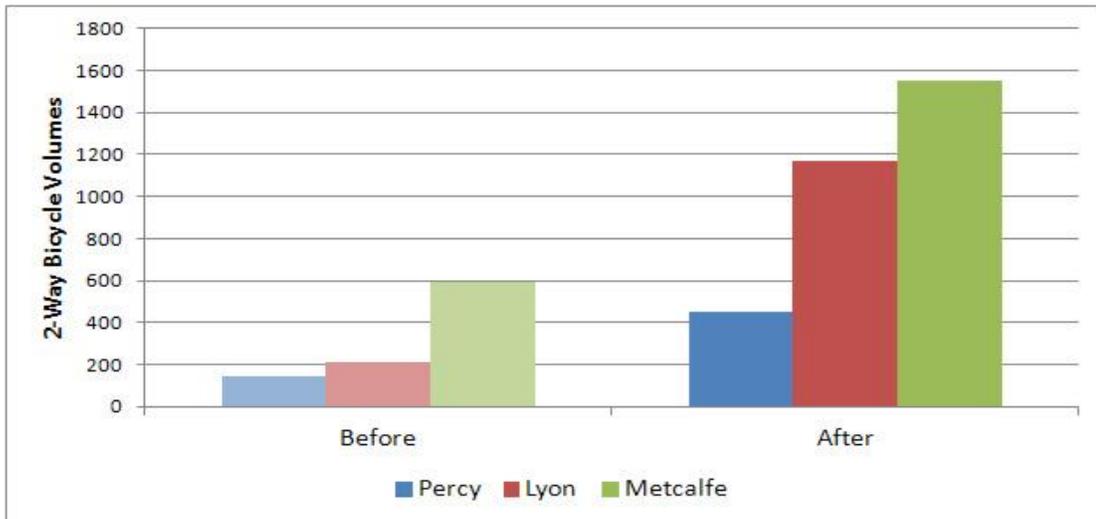


Automated bicycle counters were installed on Laurier Avenue West near Metcalfe, Lyon and Percy Streets in July 2011 as part of the initial project implementation. These counters are regularly tested and calibrated against manual counts to ensure their accuracy and are guaranteed by the vendor to be at least 95 per cent accurate.

Prior to the implementation of the automatic counters the City undertook regular manual bicycle counts at similar locations along Laurier Avenue West. A comparison of the most current historical manual counts (i.e. 2009, 2010) to the same eight-hour time intervals from the automatic counts in 2012 indicates that the number of cycling trips along Laurier Avenue West has more than tripled with 3.31 times as many bike trips observed in 2012 compared to before the bike lanes existed. The distribution of this increase varies at different locations along Laurier Avenue West with 2.61 times as many cyclists at Metcalfe Street, 5.43 times as many at Lyon Street and 3.04 times as many cyclists at Percy Street, as shown in Graph 2.

A comparison of the 2011 to 2012 cycling volumes with the bicycle lanes operational in both years indicates an annual increase of approximately 26 per cent with similar annual increases at all three count locations.

**Graph 2: Before and After Bicycle Volumes on Laurier Avenue West
(Eight Hour Count Intervals, Both Directions)**

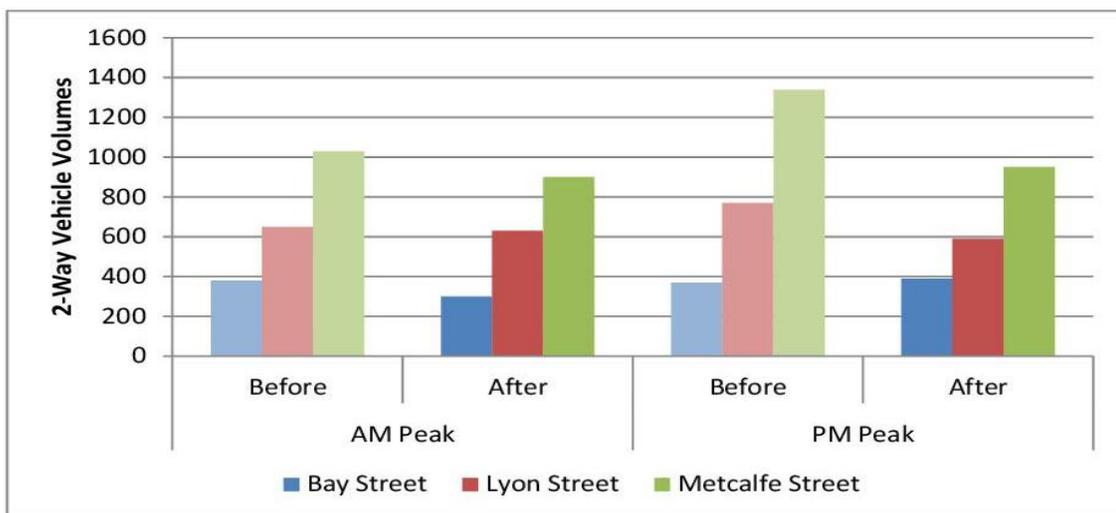


Motor Vehicle Volumes

A review of motor vehicle volumes from before and after the bicycle lanes were implemented indicates that motor vehicle volumes on Laurier Avenue West have slightly decreased by approximately 100 vehicles per hour during the morning peak hour. This decrease is similar in the afternoon peak hour with the exception of volumes in the east end of the corridor (i.e. Metcalfe Street), as shown in Graph 3. Motor vehicle volumes on parallel streets have remained constant and do not indicate diversions to any particular street.

It is important to note that reductions in motor vehicle volumes have been offset by increases in cycling volumes such that the overall total number of car and cycling trips along Laurier Avenue has remained similar before and after the bicycle lane implementation.

**Graph 3: Before and After Motor Vehicle Peak Hour Volumes on Laurier Avenue West
(Both Directions)**



Collisions

There have been fewer reported cycling collisions per year on Laurier Avenue West since the implementation of the segregated bicycle lanes; however, it can take up to one year for collision data to be validated and processed. It should also be noted that several years of collision data is typically required for it to be statistically valid.

The 2011 collision data has been finalized and includes three collision reports involving cyclists between July and December 2011. The collision data for 2012 is still being processed and at this point in time there are no collision reports that have involved cyclists; however, staff are aware of one unreported collision between a cyclist and a pedestrian. For comparison purposes, there have been 25 reported collisions involving cyclists on Laurier Avenue West between 2006 and 2010 with an average of approximately five per year.

Between July and December 2011, there were 23 total collision reports on Laurier Avenue between Elgin Street and Bronson Avenue. This compares to 36 during the same period in 2010; 21 in 2009; and 22 in 2008.

A cycling safety study is also being conducted by Carleton University which has involved analysing hundreds of hours of video from every intersection along Laurier Avenue West to determine the frequency and severity of unreported cycling conflicts. Preliminary results indicate that cyclists on Laurier Avenue West experience fewer and less severe conflicts compared to cyclists on Sussex Drive, which was selected for comparative purposes.

Emergency Services

Fire Services' response times to addresses on Laurier Avenue West have remained consistent compared to before and after the bicycle lanes. Staff from Ottawa Paramedic Services, Fire Services and Police Services all participate on the project's Technical Advisory Committee and at this point in time there are no outstanding issues related to emergency services.

Winter Maintenance

The winter maintenance costs to plow and de-ice the bicycle lanes between January and March 2012 totaled approximately \$68,700. These costs were less than previously estimated (\$80,000 versus \$68,700). The reduced costs can be attributed to fact that the actual snow accumulation for the winter was well below average (107 cm versus 230 cm). However, Ottawa received 84 hours of freezing rain compared to only 30 hours in the previous year, thereby increasing the need to de-ice the lane. Ottawa also experienced numerous deep freeze periods which typically occurred after these snow/rain events. These mixtures of snow/rain/freezing rain within one event followed by a rapid freeze created curb-side ice build-ups which are extremely difficult to remove, thereby increasing costs. Staff will seek to address this issue further in the up-coming winter season through increasing de-icing maintenance along the curb edges as required.

Public Feedback

In total, 361 written comments have been received by the City between July 10, 2011 and August 7, 2012 via the project website (www.ottawa.ca/bikelane), including emails to the Project Manager and to the project email address (laurierbikelane@ottawa.ca). Of these comments, 183 indicated support for the project while 100 disapproved and 78 were informational in nature. Table 4 lists the prominent common themes from these submissions:

Table 4: Summary of Public Feedback (July 10, 2011 to August 7, 2012)

Compliments	Complaints
Safer	Issues related to loading / deliveries / stopping
Healthier	Removal of on-street parking on Laurier
Better for environment	Accessibility concerns
More comfortable	Congestion
Encouraging for non-cyclists	Vehicles blocking bike lane
Faster to cross town compared to vehicle	No right-on-red permitted
More bike lanes are required - extensions	Pedestrian conflicts in bike lane
Better use of public road space than parking	Winter maintenance
Well maintained in the winter	Signage
Proud of City for focusing on sustainability	Enforcement

Four petitions have also been received by the City; two of which were both organized by the Bay/Bronson Residents' Action Group for Fair Access to the Road (BBRAFAR) for the removal of the lanes and include approximately 1000 signatures each. The other two petitions are to keep or to make changes to the lanes with approximately 1000 signatures in support of the lanes and 75 signatures to support making changes to the lanes. The requested changes identified in the petition since have been implemented.

Capital Budget

The Laurier Avenue Segregated Bicycle Lanes Pilot Project remains on budget.

CONCLUSION]

The performance monitoring of the Laurier Avenue Segregated Bicycle Lanes Pilot Project is underway and will require the full two-year pilot duration to fully assess its impacts, particularly given the many recent design improvements.

Staff will report back to Transportation Committee at the end of the pilot period to seek approval for the next steps.

Original signed by

John L. Moser

CC: Nancy Schepers, Deputy City Manager, Planning and Infrastructure

SUPPORTING DOCUMENTATION

[Laurier Avenue Segregated Bike Lane Monitoring Plan Study Design](#) (attached separately)