

## MEMO / NOTE DE SERVICE

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TO :	Mayor Watson and City Councillors
DESTINATAIRE :	Le maire Watson et les membres du Conseil municipal
FROM :	John L. Moser General Manager Planning and Growth Management Department
EXPÉDITEUR :	John L. Moser, Directeur général, Urbanisme et Gestion de la croissance
DATE :	May 25, 2012 Le 25 mai 2012
REF N <sup>o</sup> :	ACS#2012-PAI-PGM-0123
SUBJECT :	Advancing LRT to Orléans Issues and Approach to Analysis
OBJET :	Promotion du train léger en direction d'Orléans – Questions et angle d'analyse

### PURPOSE

This memorandum serves to provide an outline of issues and analysis that will be undertaken in order to address the following motion (MOTION NO. 16/7), moved by Councillor Blais, which Council approved on 13 July 2011(entire motion appears as an attachment):

*THEREFORE BE IT RESOLVED that, as part of Strategic Initiative 70, staff be directed to fully assess the feasibility and relative priority of rapid transit investment in the east and develop an option to provide a rapid transit rail solution to Orléans at the earliest opportunity, respecting the affordability model established within the 2011 LRFP for Transit and that this work inform the Transportation Master Plan update.*

The Motion speaks to the 2011 LRFP and the City Treasurer's July 2011 report on the affordability of the transit program which can be found at:

<http://www.ottawa.ca/calendar/ottawa/citycouncil/occ/2011/07-14/ACS2011-CMR-FIN-0039%20LRFP%20Transit.htm>.

As part of Council's discussion, it was understood that a similar analysis would be undertaken for other suburban areas of the City. Preliminary work on the Orléans LRT will help facilitate discussion and comparison city-wide. The information would inform the Transportation Master Plan (TMP) and it would be through the TMP review process that the priority setting of rapid transit facilities across the entire city would be addressed. In essence, when finalized the TMP will recommend the best overall capital investment in transit over the planning period that meets the affordability targets included in the Treasurer's memorandum.

## BACKGROUND

### **Orléans Rapid Transit Corridors – Current Status**

In the TMP, the ultimate solution for transit includes two rapid light rail transit facilities (one adjacent to the 174 corridor along the East Transitway corridor and the other through the Orléans community to the south along the Cumberland Transit Corridor). Both corridors connect to the current easterly end point of OLRT project at Blair Station and both are currently planned as facilities to be converted from BRT to LRT.

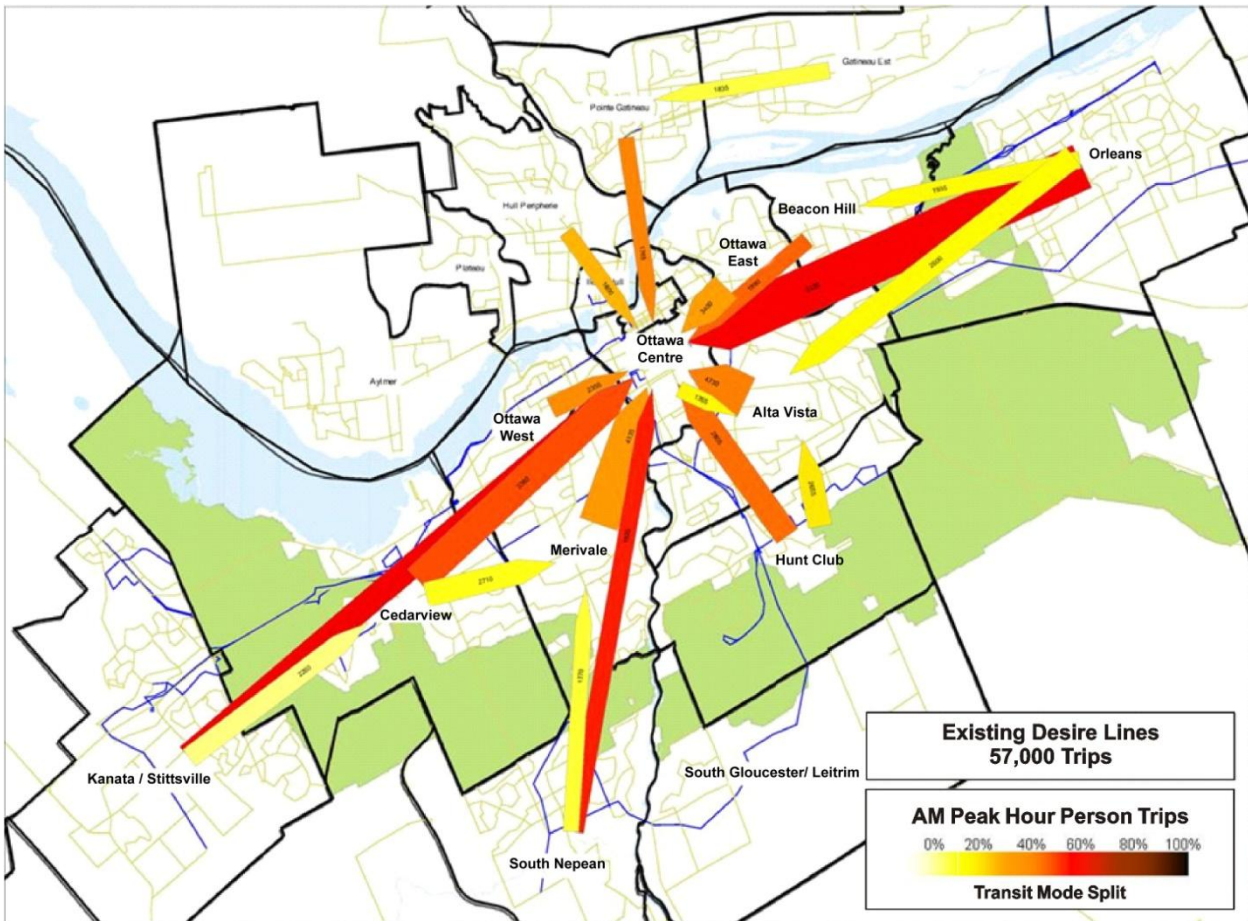
The East Transitway (Blair to Trim Road) corridor is approximately 12.5 km in length, located generally at the northern area of the East Urban Community. A corridor on the south side of 174 extending from Blair easterly is currently protected for rapid transit. In the meantime, buses are currently operating at a high level of service along the shoulder lanes of Highway 174 from Blair to Place d'Orléans. There are two park and ride lots in operation along this corridor (at Place d'Orléans and at Trim Road).

The Cumberland Transitway (Blair to Millennium) is planned for a fully segregated rapid transit corridor approximately 14.7 km in length. To date, no construction has taken place except for the first phase of the Park and Ride lot at Millennium (east of Trim), adjacent to the future Millennium/Trim Road station, which has been open for several years. However, planning is currently underway to reconfirm the location and advance construction of the EA-identified Park and Ride lot in the Chapel Hill area at Navan Road.

## DISCUSSION

### **Selection of a Corridor for LRT**

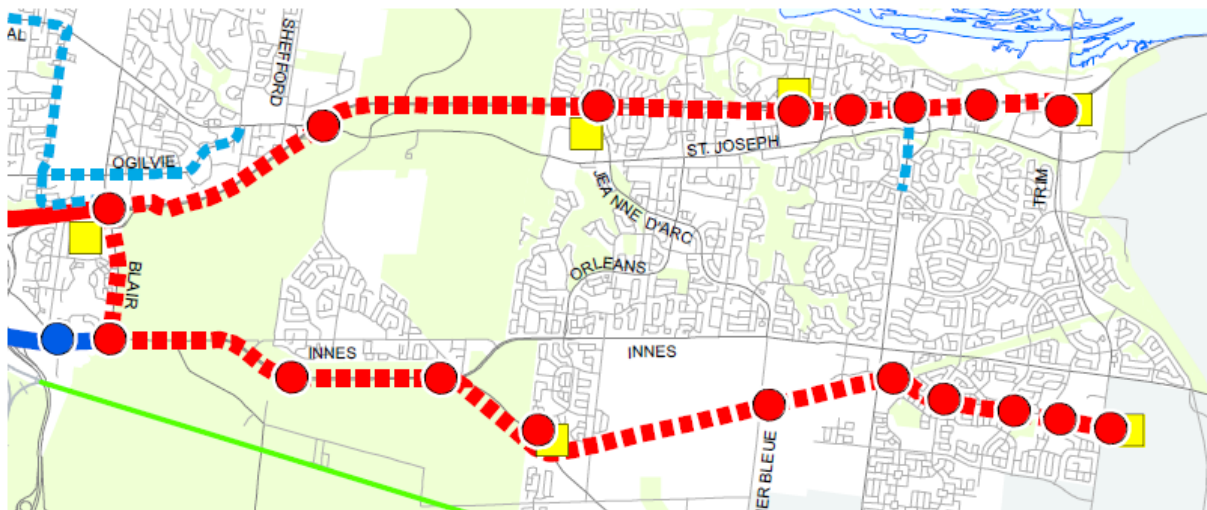
Based on the 2005 Origin-Destination survey, which is the most up-to-date and comprehensive travel data for Ottawa, the Transit Modal Split from Orléans to Downtown Ottawa is 64%. As illustrated in the “desire lines” image below that represents transit volumes from trip origin to destination, Orléans represents the highest modal split to downtown of any community in Ottawa. Given that Ottawa has the highest transit modal split in North America for a medium size city of approximately 1 million people; it is likely that the 64% transit mode split from Orléans to Downtown Ottawa is the highest suburban to downtown transit modal split in North America for a city of comparable size.



Existing Desire Lines (2005)

Given the commitment to public transit demonstrated by residents of Oréans and Cumberland significant investments in transit infrastructure are planned. Specifically, within the planning period for the TMP and the Treasurer’s affordability model up to and including 2031, approximately \$380 million has been identified for rapid transit investment in the east.

As limited funds exist for transit during the planning period and recognizing Council’s intent to ultimately service the east (as shown below), south and west with light rail, it is prudent to explore within the current envelope of funding for eastern rapid transit investment if redirecting BRT investment to LRT in one of the two corridors identified will allow for earlier LRT service to Orléans.



Rapid Transit Network – Ultimate, East End

Specifically, Phase 1, Increment 1 of the TMP includes the implementation of two segments of the Cumberland Transitway—from Blair Station to Innes Road, and from Innes Road (at Blair) to Navan Road. As the implementation of this corridor is scheduled as the next major transit investment in the east it will form a starting point for staff’s analysis for LRT extension.

Additionally, as part of its direction, staff will examine whether deferring BRT segregation along this section of the Cumberland corridor and redirecting this funding to extend rail through the Greenbelt along Highway 174 is feasible from both a technical and cost-benefit perspective. Further, should this corridor prove viable, additional cost savings may be found as implementation of LRT could produce economies of scale with respect to the widening of the highway from Trim Road to the 417/174 split if works were to be planned concurrently.

The analysis will include the following:

- Status of EA studies in relation to LRT technology,
- Ease of implementation (i.e. degree to which property is already protected; degree of federal approval requirements),
- Implementation cost including potential efficiency opportunities related to other planned investments like the widening of Highway 174,
- Reducing congestion on Ottawa roads by drawing additional transit ridership from residents who live in neighbouring municipalities east and south of Orléans who currently commute by car,
- Land value uplift and opportunities for Transit Oriented Development in both residential and commercial forms,
- Potential operational cost savings for rail over bus given projected ridership.

Some background work required for this analysis is already underway. A more recent Origin-Destination survey was conducted for the National Capital Region in the fall of 2011. Staff are currently analyzing the data to identify current travel patterns and the results are expected by early fall this year. Concurrently, the re-calibration and upgrading of the regional transportation model is also underway in preparation for the transportation demand forecasting exercise that is to follow.

With investments in the downtown Ottawa Light Rail Transit Project and its ancillary projects expected to create spinoff impacts for the local economy—analysis indicates that this investment results in creation of over 20,000 person-years of employment, and total output of some \$3.3 billion—the economic and development potential along with environmental and operational benefits of rail can be significant. To complete the analysis, other input parameters are still to come: population and employment forecasts, density targets, potential changes to land use patterns, etc. The Department is in the process of determining these parameters as part of the Official Plan Review.

## CONCLUSION

### **Priority Setting as Part of the TMP Review**

Once the preferred investment LRT corridor is selected for Orléans, the information will serve as input to the TMP including the priority investment setting exercise of the TMP review. As growth projections and density targets become defined through the Official Plan process, the full picture of transportation infrastructure needs can then be refined. Layering this with the information from the Affordability Model will result in an updated rapid transit priority plan across the entire city.

*Original signed by*

John L. Moser

CC: Vivi Chi, Manager, Transportation and Planning

## SUPPORTING DOCUMENTATION:

MOTION N<sup>o</sup> 16/7

**MOTION NO. 16/7**

Moved by Councillor S. Blais

Seconded by Councillor M. Wilkinson

**WHEREAS Strategic Initiative #70 of the Draft term of Council Priorities (ACS2011-COS-ODP-0011) calls for the review and revision of the Official Plan, Transportation Master Plan and Infrastructure Master Plan; and**

**WHEREAS the section of the Cumberland Transitway from Blair station to Navan Road is a Phase I, Increment One, Bus Rapid Transit (BRT) priority current Transportation Master Plan (TMP); and**

**WHEREAS its recommended corridor, functional design alignment and station alternatives were approved in September 2010 and the formal Environmental Assessment (EA) process based on the functional design is now near completion; and**

**WHEREAS the design for the Cumberland Transitway from Tenth Line Rd. to Frank Kenny Rd. is complete; and**

**WHEREAS the City's long term transit plans (beyond 2031) includes two LRT lines to Orléans; and**

**WHEREAS the current Ottawa Light Rail Transit (OLRT) project, will be complete prior to the implementation of the Cumberland Transitway corridor; and,**

**WHEREAS the next update of the TMP in 2013/14 creates an opportunity to review previous evaluation criteria;**

**THEREFORE BE IT RESOLVED that, as part of Strategic Initiative 70, staff be directed to fully assess the feasibility and relative priority of rapid transit investment in the east and develop an option to provide a rapid transit rail solution to Orléans at the earliest opportunity, respecting the affordability model established within the 2011 LRF for Transit and that this work inform the Transportation Master Plan update.**