Société de transport de l’Outaouais (STO) public transit system linking Gatineau’s West End to Ottawa – Scenarios under review

Board of Directors
June 25, 2020
Presentation

1. STO Study Background
2. Scenarios in Gatineau
3. Crossing of the Ottawa River
4. Scenarios in Ottawa to Integrate with the OCTranspo OTrain
5. Summary and Next Steps
Project Main Phases

Current phase:
Opportunity Study

Next Phases:
The remainder of the Project includes the following:

- Preliminary and Detailed Design
- Environmental Assessment
- Selection of Procurement Approach (traditional, PPP, ...)
- Construction and Testing
- In Service (8 to 10-year horizon)
Construction in 10 years

- Population growth
- Increased congestion
- Demand for an efficient public transit system

- Western sector: Increased ridership demand by 57% to 81% (2031)
Capital Planning Framework

• Plan for Canada’s Capital - 2017 - 2067
• Gatineau Park Plan (2005)
• Capital Core Area Sector Plan (2005)
• Sustainable Development Strategy (2018-2023)
• Interprovincial Transit Strategy (2013)
• Confederation Boulevard Guidelines (2011)
**Integrated Transit Strategy (NCC)**

- Interprovincial, continuous, accessible, integrated and easy to use
- Modern and sustainable for the long term
- Partnership between organizations

**INTEGRATED TRANSIT STRATEGY**

- Two cities
- Two provinces
- Two transit organizations
- Federal strategic role (NCC)
2 - Scenarios in Gatineau
3 Scenarios Carried Forward for Assessment

1. All tram

Strasbourg, France
Bordeaux, France
3 Scenarios Carried Forward for Assessment

2. Hybrid H1: Tram on North

3. Hybrid H2: Tram on South
Main Impacts on NCC and Federal Lands - All Scenarios

Aylmer / Champlain Bridge
- Widening required

Aylmer (between Atholl Doune and Chaudière Streets)
- Widening required

Aylmer (between St Raymond and rue des Orchidées)
- Widening required

Lucerne (St. Dominique to Belleau)
- Use of a strip of land along Parc Moussette for the construction of the cycling corridor

Railway right-of-way south of UQO (Belleau to Montcalm)
- Possible widening of the existing railway right-of-way crossing the Portageurs and Montcalm-Taché Parks
- Reconstruction of the railway bridge (and addition of cycle track) over the Ruisseau de la Brasserie

Typical width:
- 19.8 – 27.6 m (between stations)
- 24.8 – 28.9 m (at stations)
Main Impacts on NCC and Federal Lands - Hybrid Scenarios

- **St Raymond /Plateau to Promenade de La Gatineau**
  - Inclusion within the existing right-of-way
  - Addition of a new bridge east of the St. Raymond / Allumettières interchange

- **Promenade de la Gatineau to Promenade du Lac-des-Fées**
  - Modifications to the layout of the bridge spanning over the ruisseau Lac-des-Fées

- **Allumettières / Maisonneuve**
  - Widening of the Allumettières / Maisonneuve intersection involving encroachments on land north of Allumettières between Laval and Maisonneuve Streets (including land where Papa artwork)
Main implications on CCN and Federal grounds - Examples

Gatineau Parkway to Lac-des-Fées Parkway

- Modifications to the layout of the bridge over the ruisseau du Lac-des-Fées:
  - integration of the integrated corridor within the existing width
  - addition of a footbridge for a parallel recreational pathway

Typical width without recreational pathway: 29.5m)
Gatineau Park Plan Objectives:
• Prioritize access through sustainable transportation modes
• Protect the Park’s environment and avoid fragmentation
• Concentrate new regional infrastructure within existing roads
3 – Crossing the Ottawa River
Analysis of Current Crossings

Legend:
- Rapibus
- O-Train (Confederation Line)
- Underground portion
- O-Train (Trillium Line)

Champlain Bridge
- Eliminated
- Too far to the west

Prince of Wales Bridge
- Eliminated for this study
- Too far west of downtowns
- Insufficient capacity of the O-Train at Bayview
- Potential future link for a west-south route

Chaudières Bridge
- Eliminated
- Limited space (heritage buildings, Zibi, ...)

MacDonald-C Bridge
- Eliminated
- Too far to the East
Analysis of Current Crossings

Legend:
- Rapibus
- O-Train (Confederation Line)
- Underground portion
- O-Train (Trillium Line)

Portage Bridge
- Recommended
- Good service linking both downtowns.
- Sufficient space on the bridge and approaches.

Alexandra Bridge
- Eliminated for this study
- Too far from Gatineau’s west. End. Does not bring riders to major downtown employment node.
- Potential future interprovincial loop.
Crossing the Ottawa River

Portage Bridge

- Using HOV lanes
- Due to the tramway’s structural loads, more or less significant reconstruction (different possibilities depending on the insertion of the corridor).
- Tram without catenary (on batteries) on Portage
4 – Scenarios in Ottawa to integrate with O-Train
Highlights of Options

**Tram** component from Gatineau, crossing the Portage Bridge

**Buses** crossing via Portage and MacDonald-Cartier, with combined use of three loops (in mixed traffic)
Options for Tram Component

Two options:

- *Surface* integration on Wellington Street
- *Tunnel* integration under Sparks Street

The Study will assess:

- Feasibility of options
- Alignment
- Station locations
Options for Tram Component  

At-grade on Wellington Street

The design of the tram on Wellington Street would be done in line with the needs, functionality and aesthetics of Confederation Boulevard, including its character as a prestigious ceremonial route and its symbolic role of national interest (minimal infrastructure, tram on battery,...)
Confederation Boulevard Context

- Ceremonial Route established in 1983
- “Capital/public space” versus “municipal/transportation” functions
- Wellington Street as Canada’s “main street”
- STO’s proposal must take into consideration the Boulevard’s values and design principles
Grand Pedestrian Esplanade – Crown Side

- Prioritize pedestrians and quality of streetscape environment
- Promotes a discovery experience
- Grand pedestrian promenade encircling the Crown side

Image: Diagram showing the minimum 4.0 m width, 2.5 m width, and the variation of 6.5 to 9 meters for the pedestrian esplanade.

Image: Photograph of a pedestrian promenade with an indication of the pedestrian flow and street furniture.
Active Mobility...for a Sustainable Balance

- Segregated bidirectional cycle track
- Loop circling Confederation Boulevard
- Partnership with City of Ottawa & Gatineau
Options for Tram Component

Tunnel Integration under Sparks Street
Previous Plans and Visions

Concept Plan Portage/Wellington 2008

Concept Plan Confederation Square 1985

Cycling lanes, Wellington Street 2019
Other Federal Initiatives

Other federal initiatives along Wellington Street:

- Long term Vision Plan—LTVP (PSPC)
- New building on Block 2 (PSPC)
- Security measures on Block 1 and 3 (PSPC)
Options: Pros and Cons

TRAM AT GRADE ON WELLINGTON

PROS
- Ground level stations make it easier to access
- Easier to construct
- Potential extension to Alexandra Bridge

CONS
- Several uses competing for space, requiring compromises:
  - north esplanade
  - partial widening of the south sidewalk
  - Bidirectional cycling lanes
  - Vehicular traffic lanes
- Security concerns: Parliamentary Precinct and at stations
- Disruptions due to demonstrations and events on Wellington Street
- Disruption to traffic and transit during construction
- Significant increase in the number of pedestrians crossing Wellington to reach the stations

TRAM IN TUNNEL UNDER SPARKS

PROS
- Light impact on traffic and at-grade amenities
- More direct connections with the O-Train
- Weather protected environment for transferring passengers
- Less vulnerable to service interruptions from external events such as demonstrations

CONS
- Higher cost than at-grade option
- Complex and lengthier construction with higher risks
- Significant underground constraints (utilities and foundations)
- Portal will impact the green pen space west of Commissioner Street
- Potential security concerns of adjacent federal institutions
## Summary of considerations for the Capital

### ACPDR Comments

<table>
<thead>
<tr>
<th>ACPDR Comments</th>
<th>Responses</th>
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<tbody>
<tr>
<td>Integration of the two transit systems and coordination with other transportation projects</td>
<td>Staff recommendation</td>
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<tr>
<td>Visual unity of transits systems, including logos and colours</td>
<td>To be considered at later phases of the project</td>
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<tr>
<td>Pedestrian space and active modes should be enhanced and integrated in the Tram network on Confederation Boulevard, without sacrificing the landscape and urban furniture</td>
<td>Staff recommendation</td>
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<tr>
<td>Integrate the long term plan for Parliamentary Precinct</td>
<td>Staff recommendation</td>
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<tr>
<td>Takie into consideration future changes to mobility following the pandemic</td>
<td>To be considered at later phases of the project</td>
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<tr>
<td>Undertake public consultations in Gatineau and Ottawa</td>
<td>Consultations are held in June 2020 in Gatineau and Ottawa</td>
</tr>
<tr>
<td>Public realm and user experience::</td>
<td>To be considered at later phases of the project</td>
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<tr>
<td>At-grade tram is more difficult for persons with mobility issues</td>
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<tr>
<td>Use retractable bollards to ensure safety of entrances to Parliament</td>
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Summary of Capital Interests

- Minimize Impacts on Gatineau Park and sensitive ecosystems
- Maintain streetscape character of Confederation Boulevard and make it more pedestrian friendly
- Prioritize public transit and reduce vehicular lanes on Wellington Street
- Minimize impacts on federal lands Wellington and on Parliamentary precinct’s operations
- Minimize loss of mature trees
- Ensure the planned segregated bidirectional cycling lanes are taken into consideration
- Consider opportunities for re-imagining certain sections of Wellington as public spaces
- Take into consideration security requirements for federal buildings
- Find solutions for tour buses along Wellington Street
- Ensure that the tunnel option is evaluated fairly for its numerous advantages despite higher costs
Next steps

• Continue the assessment of scenarios in Ottawa
• June 2020: Public consultations
• August 2020: Presentation to NCC Advisory Committee on Planning, Design and Realty
• Approvals by Cities of Gatineau and Ottawa
• October 2020: NCC Approval in principle of alignment on federal lands
• Autumn 2020: Continue evaluation of scenarios
• End 2020: Study completed with final recommendation on alignment and transit mode