

Technical Briefing West-End Study Conclusion of the Comparative Analysis

May 12, 2021

Complementary Study for a Dedicated Public Transit System Between Gatineau's West End and the Gatineau and Ottawa Downtowns



Agenda

1. Study Objectives
2. Recap of the Needs Analysis
3. Comparative Analysis Findings
4. Route on the Quebec Side
5. Artist's Impressions

Study Objectives

Study objectives

The introduction of a dedicated public transit system in Gatineau's west end will have to:

- meet mobility needs (current and projected to 2051):
 - *offer a reliable and attractive alternative to driving solo,*
 - *ensure efficient service for the Gatineau and Ottawa downtowns and the metropolitan area, and*
 - *link up with the Rapibus and Ottawa's major public transit routes;*
- help achieve the goals of Gatineau's revised regional land use and development plan (SADR); and
- support the region's economic and social development from a metropolitan perspective.

Les collaborateurs :



Les experts en transport :



Recap of the Needs Analysis

Need: projections relative to 2014 - growth

Population



Gatineau
+ 18% by 2031
+ 26% by 2051

West End
+ 30% by 2031
+ 33% by 2051

Jobs



Gatineau
+ 22% by 2031

West End
+ 28% by 2031

Ottawa
+ 29% by 2031

Key development areas:

- Ottawa U
- Tunney's Pasture
- Downtowns

Building Projects



- Gatineau
- densification of the downtown
- Zibi project

- Ottawa
- densification of the downtown
- LeBreton Flats

Transportation



Driving solo:
+ 17 to 31%

Public transportation:

+ 20 to 40%
(overall increase)

Infrastructure Requirements

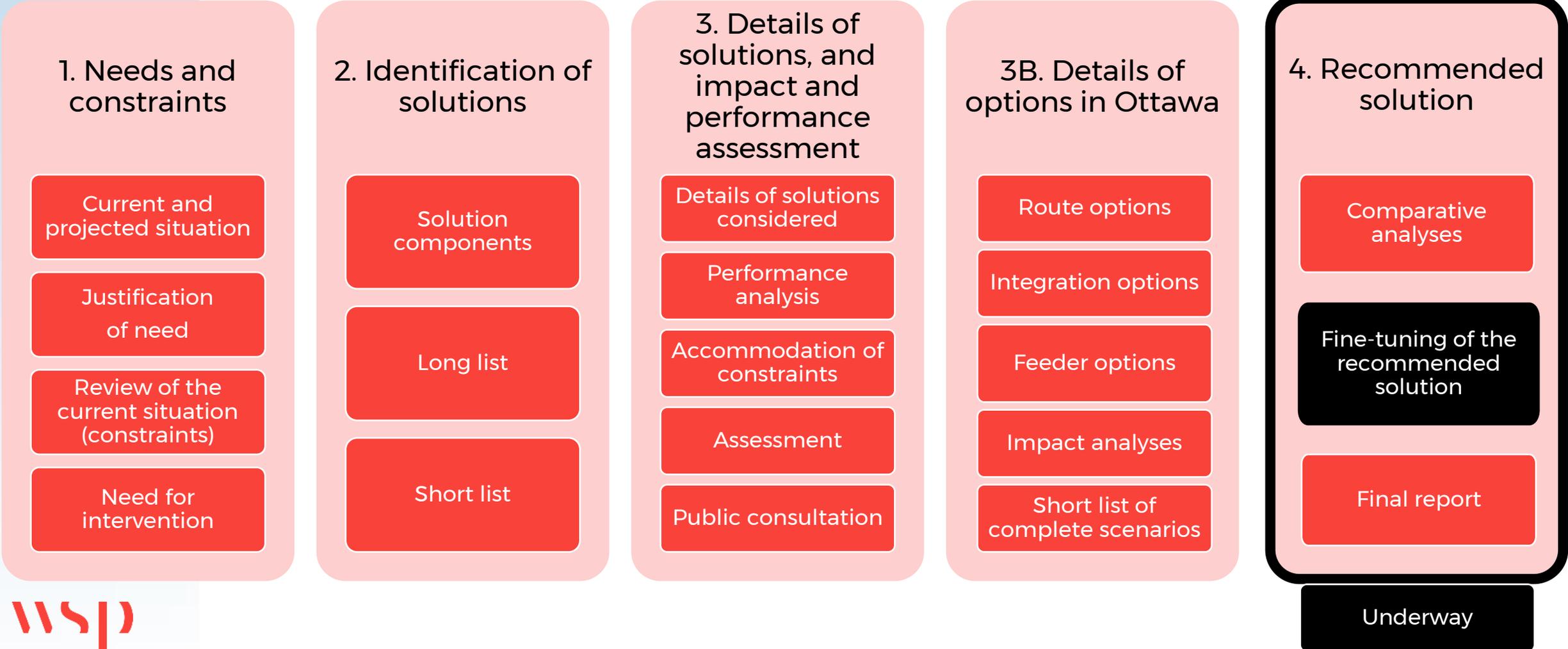


Roads have been at full capacity since 2014

- Natural obstacles :
- Gatineau Park
 - Ottawa River

→ **Traffic conditions are expected to deteriorate significantly.**

Stages of the study



Comparative Analysis Findings

Recap of scenarios still on the table

All tram
T1



Hybrid
H1



Hybrid
H2

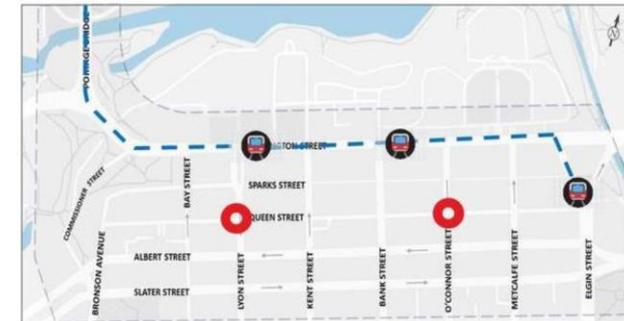


Quebec side

Ottawa side



Tunnel
under
Sparks



At grade
on
Wellington
*With or
without
traffic*

Comparative Analyses – Findings and Highlights

- **Every scenario entails a significant advantage over the status quo:**
 - Increased use of public transit
 - Fewer vehicles on the roads
 - Less GHG emissions and air pollutants
 - Integration of Gatineau's and Ottawa's dedicated public transit systems
 - Reliable public transit system
 - Accessible and convenient for riders
 - Transit-oriented development (TOD)
 - Active and healthy transportation modes
 - Accessibility to work and workers
 - Social equity

Comparative Analyses – Findings and Highlights

- **On the Gatineau side, the all-tram scenario (T1) stands out as the most effective:**
 - Fewer buses in the downtowns
 - Residual capacity for future growth in ridership
 - Less disruption of natural areas because it does not cross Gatineau Park at boulevard des Allumettières.
- **On the Ottawa side, the tunnel under Sparks is the most effective solution, but the at-grade on Wellington (with or without traffic) remains a valid option.**

Conclusion from Analyses

- The conclusion from the comparative analysis of the different scenarios under study is that the optimal dedicated public transit system for linking Gatineau's west end and Ottawa is **the all-tram scenario with a tunnel under Sparks St. in downtown Ottawa**. This is the scenario that best meets the needs identified and set out in the complementary study.
- If the tunnel option proves to be unfeasible (due to cost or technical issues), the optimal solution would be **the all-tram scenario with at-grade integration on Wellington in downtown Ottawa**.
- Further details on these two options will be provided in the subsequent pre-project phases.

Cost by scenario (\$M)

SCÉNARIO	Total (Études, Réalisation, Risques, Contingence, et Indexation)
T1 - Wellington	3032
T1 - Tunnel Sparks Min	3533
T1 - Tunnel Sparks Max	3900
H1 - Wellington	3302
H1 - Tunnel Sparks Min	3803
H1 - Tunnel Sparks Max	4170
H2A - Wellington	3205
H2A - Tunnel Sparks Min	3705
H2A - Tunnel Sparks Max	4072
H2B - Wellington	2741
H2B - Tunnel Sparks Min	3241
H2B - Tunnel Sparks Max	3609

- **Price indexation** to 2026 set at 2.1%/year

Cost breakdown by territory (\$M)

SCÉNARIO	Gatineau	Portage et Ottawa	Total
T1 - Wellington	2447	585	3032
T1 - Tunnel Sparks Min	2447	1085	3533
T1 - Tunnel Sparks Max	2447	1452	3900
H1 - Wellington	2718	585	3302
H1 - Tunnel Sparks Min	2718	1085	3803
H1 - Tunnel Sparks Max	2718	1452	4170
H2A - Wellington	2620	585	3205
H2A - Tunnel Sparks Min	2620	1085	3705
H2A - Tunnel Sparks Max	2620	1452	4072
H2B - Wellington	2157	585	2741
H2B - Tunnel Sparks Min	2157	1085	3241
H2B - Tunnel Sparks Max	2157	1452	3609

Route on the Quebec Side: Choice of Variants

Variant: Eardley vs Allumettières / Wilfrid-Lavigne

Chemin Eardley / rue Principale

Pros

- Shorter trip because few stations and intersections
- Easier access to more businesses on rue Principale
- Service all along chemin Eardley: residents can more easily access the stations on foot

Cons

- More partial and full acquisitions required
- Some parking spots suppressed



Boulevard des Allumettières / Wilfrid-Lavigne

Pros

- Significantly fewer partial acquisitions required, and no full acquisitions.
- More service along those boulevards: residents can more easily access the stations on foot

Cons

- Longer route, so longer trips
- Possibility of fewer traffic lanes

Option: Eardley vs Allumettières / Wilfrid-Lavigne



Public consultations in 2019:

- **48% of respondents** preferred **Allumettières / Wilfrid-Lavigne**

Main reasons:

- *Less impact (70%)*
- *More space (56%)*
- *Better coverage (41%)*

- 16% preferred Eardley / Principale

Main reasons:

- *Better service (68%)*
- *Development of neighbourhoods (42%)*
- *Faster (40%)*

Recommendation:

- **Allumettières / Wilfrid-Lavigne**

Variant: Lucerne vs Aylmer / A.-Taché

Boulevard Alexandre-Taché in front of UQO

Pros

- The stations are closer for residents living north of boulevard Alexandre-Taché than if they go behind UQO

Cons

- More acquisitions required given that there isn't enough available space for the dedicated system
- The space in front of the cemetery is narrow.

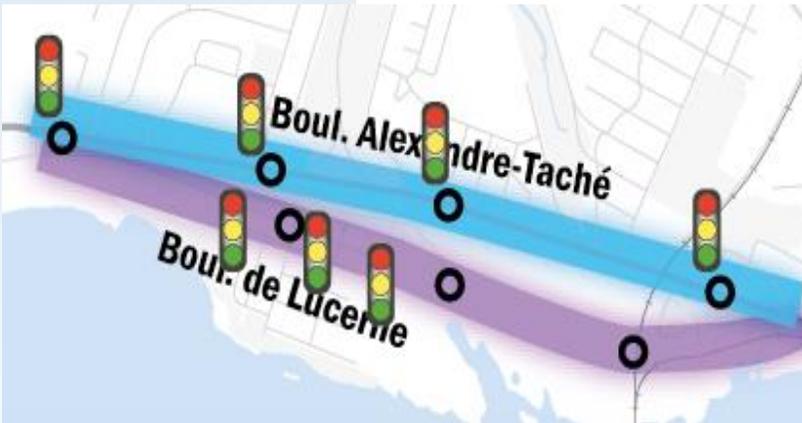
Behind UQO – under this option, boulevard Lucerne between Belleau and Saint-Dominique could become one-way

Pros

- No full acquisition of residential properties.
- The street in front of École Jean-de-Brébeuf could be redesigned without expropriating any of the school's property.
- The main entrance to UQO is on this roadway.
- Boulevard Alexandre-Taché could be redesigned using the space currently occupied by the reserved lanes to widen the sidewalks and/or add vegetation.

Cons

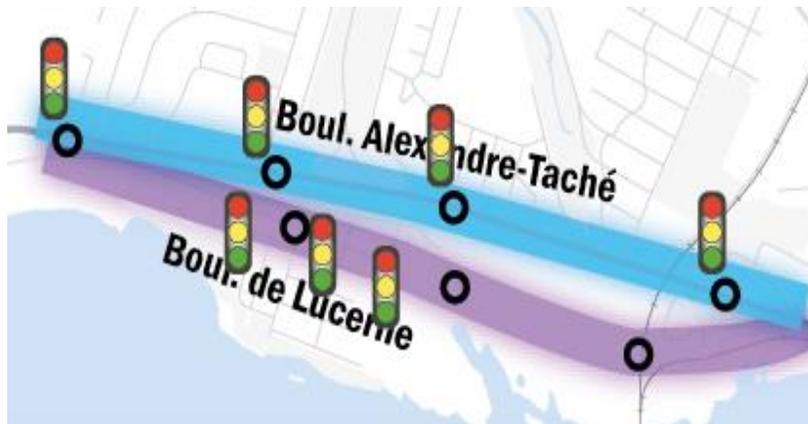
- It could take certain riders somewhat longer to reach the station
- Certain stations are located in less developed and convenient places (e.g. behind rue Millar, near the Prince of Wales Bridge)



Option: Lucerne vs Aylmer / A.-Taché

Public consultations in 2019;

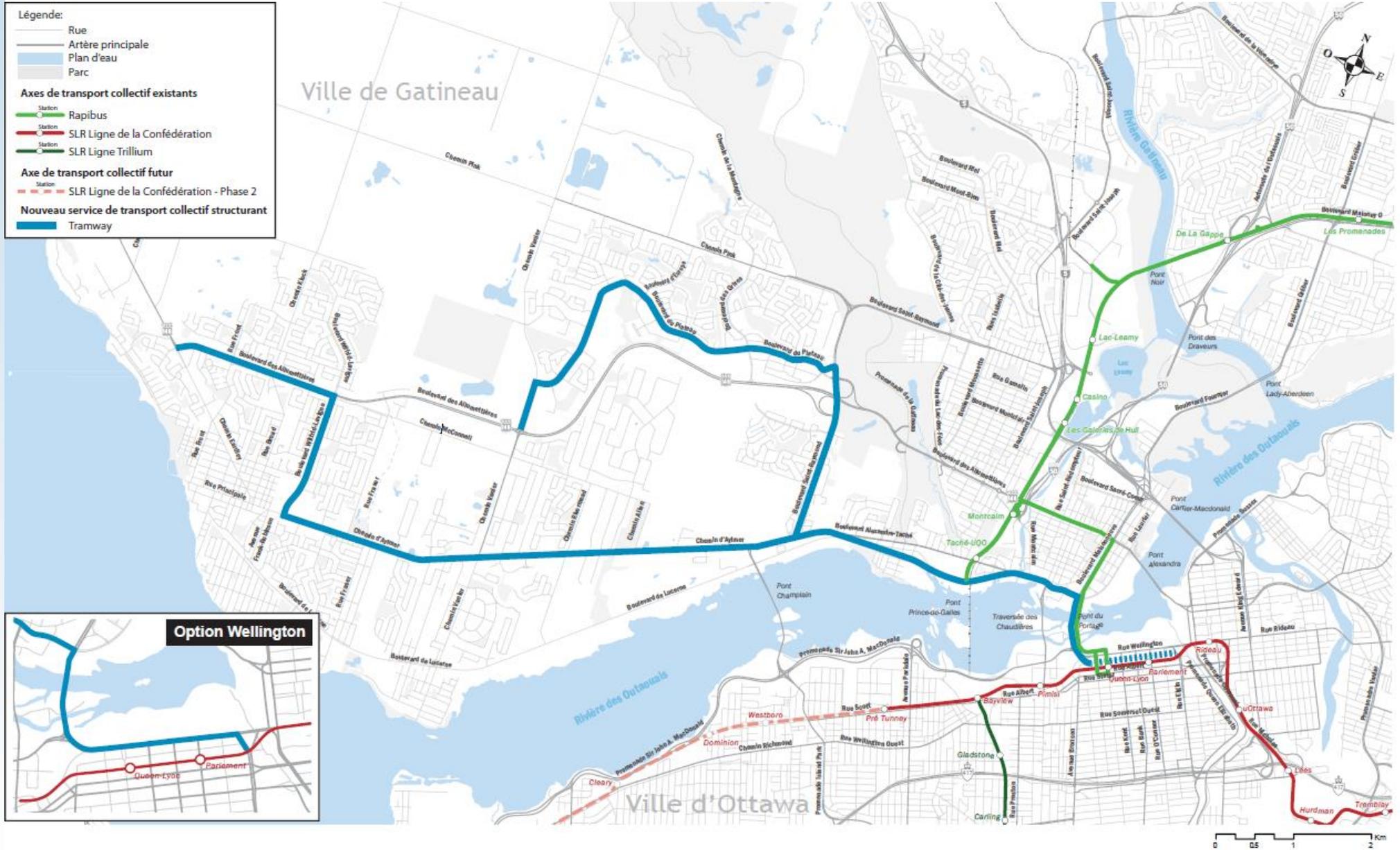
- **53% of respondents** preferred **passing behind UQO;**
 - 32% behind UQO until Saint Joseph
 - Main reasons:*
 - *Less impact (56%)*
 - *More space (55%)*
 - *Clears the other roadway for cars (49%)*
 - 31% behind UQO and Millar until Hanson
 - Main reasons:*
 - *Clears the other roadway for cars (61%)*
 - *More space (59%)*
 - *Less impact (55%)*
- 24% preferred Alexandre Taché
 - Main reasons:*
 - *Better service (66%)*
 - *Accessible on foot or by bike (55%)*
 - *Better access to UQO (42%)*



Recommendation:

- **Boulevard de Lucerne, behind UQO and rue Millar**

Optimal route for the all-tram scenario

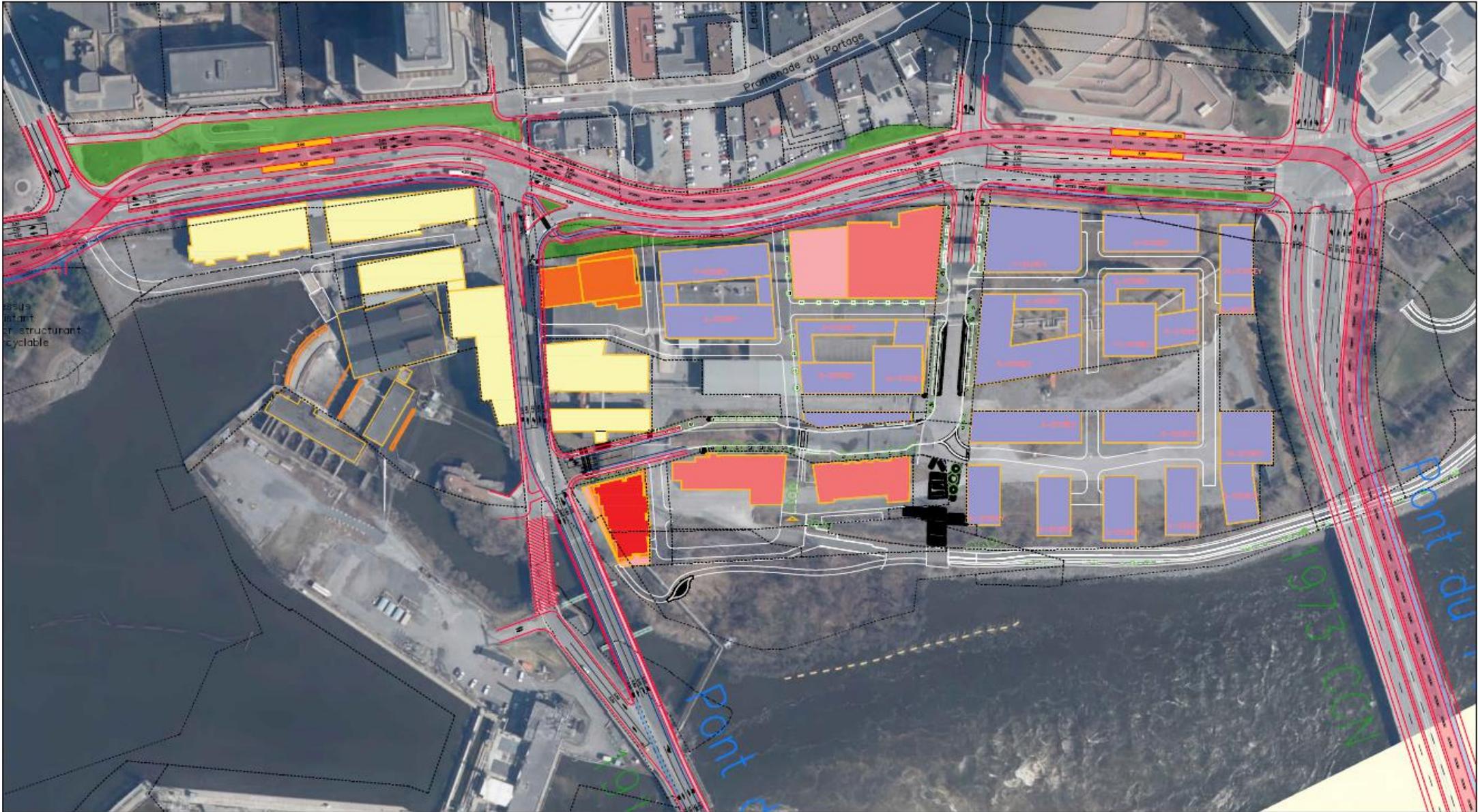


Layout for Downtown Gatineau

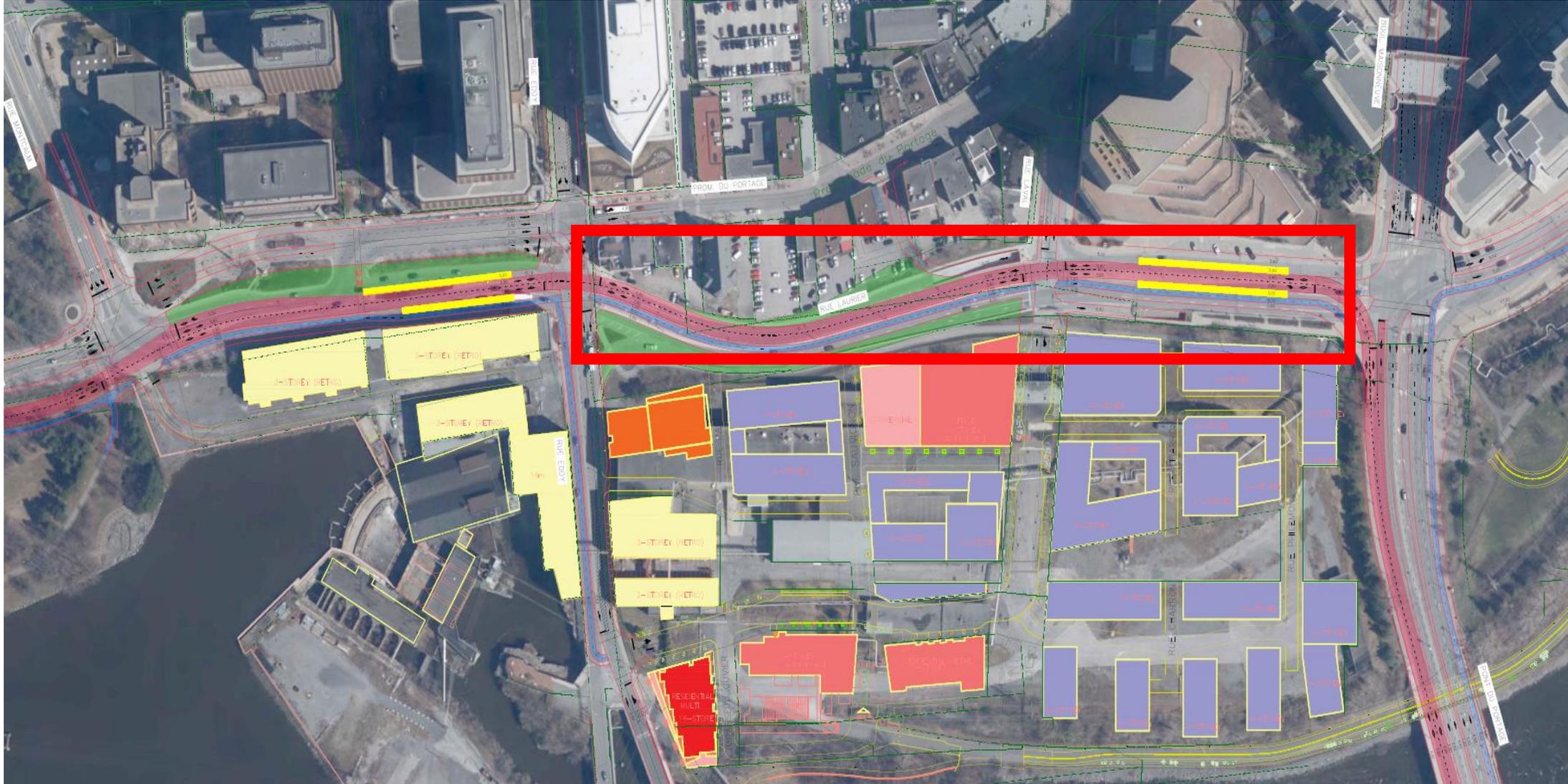
Layout for rue Laurier (scenarios under study)

- Maintain one lane for traffic in each direction on rue Laurier
- Close off the section of rue Laurier between the Chaudière and Portage Bridges
- Close off the section of Laurier between Eddy and Laval only, and keep it open for local traffic to Zibi.

Rue Laurier - With traffic



Rue Laurier – Close off the section between the Chaudière and Portage Bridges



Benefits of bringing a tram to the downtown

- Considerably reduces the number of buses going through downtown Gatineau.
- Reduces the number of vehicles on the road.
- Allows for a better layout of the territory by creating a living environment conducive to the integration of active transportation modes.

Findings

- Integrating the tram **with traffic** on rue Laurier **is not viable**.
- Running the tram without traffic on rue Laurier between Eddy and Laval, or between Eddy and the Portage Bridge are viable options.
- More in-depth analyses will be done in subsequent stages to ensure a better informed decision on the preferred integration option.

Possible Layout – Rue Laurier Without Traffic

Portage (before)



Portage (after)



Portage (after)



Artist's Impressions

Le Plateau



Elgin St. (before)



Elgin St. (after)

35



Wellington St. (before)



Wellington St. (after)

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Wellington St. (after)

Complementary Study for a Dedicated Public Transit System Between Gatineau's West End and the Gatineau and Ottawa Downtowns

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Thank you!