

**Subject: Stage 2 Light Rail Transit Project**

**File Number: ACS- TSD-RCP-0005**

**Report to Light Rail Sub-Committee on 29 November 2024**

**Submitted on November 20, 2024 by Renée Amilcar, General Manager, Transit Services Department**

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**Ward: Citywide**

**Objet : Phase 2 du projet de train léger sur rail**

**Numéro de dossier : ACS- TSD-RCP-0005**

**Rapport présenté au Sous-comité du train léger**

**Rapport soumis le 29 novembre 2024**

**Soumis le 2024-11-20 par Renée Amilcar, Directrice générale, Services de transport en commun**

**Personne ressource : Richard Holder, Directeur, Programme de construction du train léger, Services de transport en commun**

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**Quartier : À l'échelle de la ville**

#### **REPORT RECOMMENDATION(S)**

That the Light Rail Sub-Committee receive this report for information.

#### **RECOMMANDATION(S) DU RAPPORT**

Que le Sous-comité du train léger prenne connaissance du présent rapport à titre d'information.

## **BACKGROUND**

On March 6, 2019, Council approved the Contract Award of Ottawa's Stage 2 Light Rail Transit Projects and Related Matters report ([ACS2019-TSD-OTP-0001](#)).

TransitNEXT (TNEXT) was awarded the contract to design, build, finance, and maintain the Trillium Line extension, including the Airport Link. The Trillium Line will operate from Bayview Station to Limebank Station (Line 2) and include the Airport Link (Line 4).

East/West Connectors (EWC) was awarded the contract to design, build, and finance the Confederation Line extensions. The project will extend Line 1 from Blair Station to Trim Station in the east and from Tunney's Pasture Station to Moodie Station (Line 1), and to Baseline Station (Line 3).

As part of the 2022-2026 Council Governance Review report, Council approved the following Motion 2022 - 03/06, moved by Councillor Desroches and seconded by Mayor Sutcliffe:

THEREFORE BE IT RESOLVED that City Council establish a Light Rail Sub-Committee of Council to provide oversight over non-operational matters related to the Confederation Line 1 and the construction of Confederation Stage 2 and Trillium Lines.

Based on this motion, Transit Services provides a regular Stage 2 Light Rail Transit Project presentation to Light Rail Sub-Committee (LRSC).

## **DISCUSSION**

This report, and the presentation prepared for the November 29, 2024, Light Rail Sub-Committee (LRSC) meeting, provides a construction update on the O-Train Confederation East and West extensions.

Separately, Transit Services has been providing regular updates to Council on the completion of Trial Running, Substantial Completion, regulatory certification and final launch plans for the O-Train South Extension, Line 2 and Line 4.

The City of Ottawa has taken significant steps to apply lessons learned from the Stage 1 project and ensure their integration into the planning, procurement, and delivery of the Stage 2 project. Moreover, many of the recommendations stemming from the Ottawa Light Rail Transit (OLRT) Public Inquiry have been embedded in the Stage 2 Program and are being implemented as part of the works. The Inquiry recommendations and the

City's response to complete the work is outlined in the Action Plan Status Update – Response to OLRT Public Inquiry Recommendations ([ACS2023-TSD-TS-0016](#)).

The City of Ottawa continues to prioritize the implementation of lessons learned as the Stage 2 project progresses. City staff consistently apply the knowledge gained from previous work to improve operations and the development of the Stage 2 project.

### **1. O-Train Line 2 and Line 4**

Transit Services has provided, and will continue to provide, regular updates to Council on the progress of Line 2 and Line 4. As previously committed, staff will provide an in-depth technical briefing on the status of Substantial Completion, operational readiness, regulatory approvals, and the anticipated date of Revenue Service.

### **2. Confederation Line East Extension Construction**

In the east, train testing is ongoing for the entire alignment from Blair Station to east of Trim Station and will continue throughout 2024.

Communication rooms and device configurations are being set up at all stations in the east, with both activities continuing throughout Q4 2024. System testing has begun, and Technical Standards and Safety Authority (TSSA) certifications for elevators and escalators are expected to begin before the end of the year. All Traction Power Sub Stations (TPSS) in the east have been energized.

The communication-based train control system commissioning is well advanced with multiple trains running in loops and boundary testing between Stage 1 and Stage 2 territories completed.

Correction of trackwork deficiencies is ongoing. Finishing work continues at all east stations, including Montréal, Jeanne d'Arc, Convent Glen, Place d'Orléans, and Trim. This work is expected to be completed between late 2024 and early 2025.

Civil works outside the guideway are ongoing along OR-174, including grading, drainage, headwall installation, slope finishing, top-lift paving, guardrail installation, and landscaping.

- The rehabilitation of Jeanne d'Arc Blvd. is nearing completion, with top-lift paving on the bridge, and the approaches to the bridge, scheduled for Q2 2025.
- Noise wall installation on the south side of the highway is complete.

- Concrete paving, curb installation, and grading work has begun at South Frontage Road and Old Trim Road.
- The new Trim bus loop has been completed and opened for public use.
- Hardscaping elements are progressing at Montréal Road, Jeanne d'Arc Blvd., Orleans Blvd., Champlain Street, and along OR-174.

Station occupancy for the East stations is progressing well with the major civil construction completed.

### **3. Confederation Line West Extension Construction**

For Confederation Line West, construction of stations, guideway, track, and the cut and cover tunnel continue in all areas. A series of detours continue to be necessary to enable various construction activities.

The Pinecrest Stormwater Management Pond is also nearing completion, multi-use pathways are open to the public, and operational handover is ongoing.

Crews have begun working on the overhead catenary system (OCS) at the Light Rail Maintenance Facility (LMSF) which is at the western limit of the project, and work is starting to progress east from Moodie Station towards Bayshore Station.

With completion of the concrete for the cut-and-cover tunnel, progress has continued for installation of track, dry fire lines and other tunnel fit outs that will ultimately be required to run the system.

#### **Line 1 Stations**

Structural work is nearing completion at all stations, with Westboro Station needing additional work. Westboro Station will be structurally complete by mid 2025.

Interior finishes, including testing and commissioning of mechanical and electrical components at stations, continue as they near closer to completion. These stations include Moodie, Pinecrest and Queensview.

Construction of the platforms and work on the elevators continues at Bayshore Station.

#### **Line 3 Stations**

Work on Line 3 stations is progressing well. At Lincoln Fields Station, work includes minor deficiencies and completion of elevator installation. The platform edge has been poured

at Iris Station. The tile installation and pedestrian bridge construction continues at Algonquin Station.

### **Light Maintenance Storage Facility (LMSF)**

At the LMSF, most of the work is focused on completion of the flatworks around the buildings. OCS installation is ongoing and expected to be complete in the yard before the end of the year.

A significant milestone was also achieved with the delivery of the first train to the LMSF in Fall 2024. Two additional trains plan to be delivered by truck to the LMSF before the end of 2024 and will be reassembled there. This will allow for testing to begin, including maintenance equipment at the LMSF, clearance tests, pantograph and OCS tests. This will be followed by CBTC testing starting at the LMSF and gradually progressing eastward over the next several months.

This delivery of trains to the LMSF by truck allows testing to start on the west alignment despite the alignment not being fully completed as the tracks in the Parkway tunnel will not be completed for a number of months.

Currently, 14 of the 38 vehicles for the Stage 2 fleet have been delivered and accepted by the City. Twelve additional vehicles are at various stages of testing and acceptance. The remaining 12 are in production or have yet to start production.

## **FINANCIAL IMPLICATIONS**

### **1. Stage 1 and Stage 2 Contingency Funds**

The Stage 1 Confederation Line contingency fund is \$115 million. To date, \$101.9 million from the total fund has been spent. Remaining funds are primarily related to property requirements and remaining commercial matters.

The original Stage 2 contingency fund of approximately \$152 million was increased by \$25 million (approved by Council July 06, 2022) and an additional \$110 million (approved by Council November 22, 2023) due to unforeseen costs and improvements to the project. Approximately \$238 million of the Stage 2 contingency fund has been committed to date. As per the last funding report, a residual budget pressure is forecasted for City and other costs, however that pressure will be addressed at a future date.

### **2. Stage 1 and Stage 2 Capital Budgets**

In keeping with Council's approved 2017 Stage 2 Report ([ACS2017-TSD-OTP-0001](#)), 2019 Stage 2 Report ([ACS2019-TSD-OTP-0001](#)), 2022 Stage 2 Report ([ACS2022-FSD-](#)

[FIN-0009](#)) and 2023 Stage 2 Report ([ACS2023-TSD-RCP-0017](#)), approximately \$3.979 billion has been spent as of October 31, 2024, and relates to the RTG MOU for Belfast Yard and vehicle assembly mobilization (\$451 million), Confederation Line extension mobilization and construction period payments (\$2.240 billion), Trillium Line extension construction period payments and financial close for the Revenue Vehicle Supply Contract (\$658 million), and contingency (\$152 million). The remaining \$478 million was spent on planning, procurement, project delivery and City retained scope.

October 31, 2024				
Project Description	Authority	Actual Expenditures	Funds Reserved/Committed	Unspent/Uncommitted
<b>Stage 1</b>				
Confederation Line Program	2,130,000,000	2,130,000,000	-	-
Contingency	115,000,000	101,855,407	13,144,593	-
<b>Total Stage 1</b>	<b>2,245,000,000</b>	<b>2,231,855,407</b>	<b>13,144,593</b>	<b>-</b>
<b>Stage 2</b>				
Confederation Line Extensions				
DBF Contract	2,680,832,113	2,239,818,753	441,013,360	-
Trillium Line Extension DBFM				
Contract	850,966,493	657,843,229	54,601,273	-
Deferred Equity (Maintenance Term)	-	-	138,521,990	-
RTG Stage 2 MOU (includes 38 Alstom vehicles)				
	516,184,423	450,974,885	65,209,538	-
City Costs (includes planning, procurement, property acquisitions, City retained scope, and delivery oversight)				
	574,629,108	478,297,912	36,133,294	60,197,902
Contingency	287,640,000	152,314,187	95,743,999	39,581,814
<b>Total Stage 2</b>	<b>4,910,252,137</b>	<b>3,979,248,966</b>	<b>831,223,455</b>	<b>99,779,716</b>

Delays could have implications on the project's budget. Staff will report to Committee and Council on any adjustments to the contingency budget, as required.

## LEGAL IMPLICATIONS

There are no legal impediments to receiving this report for information.

## ACCESSIBILITY IMPACTS

All components of the Stage 2 LRT project adhere to the *Accessibility for Ontarians with Disabilities Act* (AODA). Any policy or procedural development, as well as customer communications and public engagement identified in the report's recommendations will include the application of the City's Equity and Inclusion Lens. Staff will continue to engage persons with disabilities and accessibility stakeholders to ensure that their

perspectives are considered and incorporated, and to promote inclusion. Staff will also ensure that any applicable accessibility legislation, standards and guidelines are adhered to during the execution of the projects and initiatives identified in this report.

## **ASSET MANAGEMENT IMPLICATIONS**

The City of Ottawa' Comprehensive Asset Management program uses widely accepted asset management practices and long-range financial planning, in compliance with provincial asset management regulations, to manage the City's infrastructure portfolio worth over \$70 billion to provide for the safe delivery of reliable and affordable services to the community. Asset management is an internationally recognized and implemented practice that supports informed, transparent decision making, giving Council a framework to provide direction on the appropriate balance of service delivery, cost, and risk, through a process of optimizing the lifecycle management of the City's assets which support the services it delivers.

The implementation of the Comprehensive Asset Management program enables the City to effectively manage existing and new infrastructure to maximize benefits, reduce risk, and provide safe and reliable levels of service to community users. The report identifies potential improvements to the Business Case and Project Management Policy and Project Management Framework. These are guiding documents to the Comprehensive Asset Management program, and as such, any changes to these core documents will be reviewed and reflected in the program.

## **RURAL IMPLICATIONS**

The City's transportation network, including light rail transit, is designed to provide options for all residents. Once completed, Stage 2 LRT will span from Trim Rd. to Moodie Dr. and south all the way to Riverside South. Rural residents will have access to Park and Ride lots at various stations which will allow them to easily use public transit.

For O-Train South specifically, there will be Park and Ride lots at Bowesville Station, Leitrim Station, and Greenboro Station.

## **TERM OF COUNCIL PRIORITIES**

The 2023-2026 Term of Council Priorities include:

- A city that is more connected with reliable, safe and accessible mobility options.
- A city that it is green and resilient.

## **DISPOSITION**

Transit Services will provide ongoing information to Light Rail Sub-Committee (LRSC), Transit Commission and Council as Substantial Completion of O-Train South (Line 2 and Line 4) is finalized.

Construction updates for O-Train Line 1 and Line 3 will be provided to LRSC.