



## MEMO / NOTE DE SERVICE

To / Destinataire	Mayor and Members of Council	File/N° de fichier:
From / Expéditeur	Director, O-Train Construction Director, O-Train Planning Transportation Services Department	
Subject / Objet	O-Train Confederation Line Quarterly Update (Q3 – 2018)	Date: November 20, 2018

As part of the ongoing commitment to keep Council apprised of the progress of the O-Train Confederation Line Stage 1 and Stage 2 projects, this memorandum outlines the milestones achieved in Q3 2018, and provides an overview of the planned work for Q4 2018. In addition, it provides information that addresses the most common questions received by staff from Members of Council and incorporates the November update from the Finance and Economic Development Committee (FEDCO).

### ***Stage 1 Light Rail Transit (LRT) Project Update***

#### **Overall Progress: Stations**

Tunney's Pasture, Bayview, Pimisi, Lyon, uOttawa, Lees, Hurdman, Tremblay, St-Laurent, Cyrville and Blair Stations are currently undergoing inspection for Occupancy Permits. Parliament and Rideau Stations are being closely monitored; both are scheduled for inspection for Occupancy Permits and completion is anticipated for late Q4 2018.

#### **Completed/Ongoing:**

##### **Tunney's Pasture Station**

Station platform topping slabs, glazing installations, ceiling composite metal panels and porcelain wall panel installations are complete. Landscaping work, bus operator, bus supervisor and maintenance buildings, bus loop, wood ceiling, entrance lanterns, signage and platform furnishings are underway.

##### **Bayview Station**

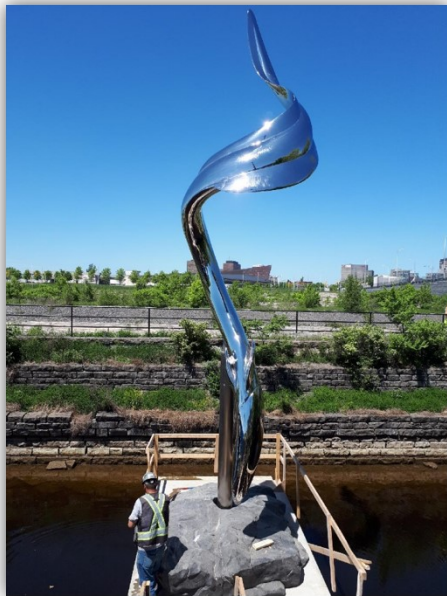
Siding & glass glazing of escalators, elevator shafts, stairs area, handrail installations for both north and south stairs, fare vending and gate machines installation for lower concourse & east plaza entrances, wood ceiling installations and lower concourse and platform lighting fixture installations have all been completed. The second *Cascade* public art structure at the south side of station has also been successfully installed.



**Bayview Station – Cascade Art Structure**

### **Pimisi Station**

Concrete sand blasting of platform and concourse levels, windscreen, stairs, glass siding, handrail installations, platform sign bands, signage and wayfinding are all completed. Fare vending machine for lower concourse, east and west entrances and fare gates in lower concourse level are installed. The integrated public art (Birch bark windscreen) is fully mounted. Ongoing work includes hard and soft landscaping works on the north side of plaza, wood ceiling, lanterns, wall glass glazing, elevator shrouds, utility cabinets, transit information panels and passenger information displays.



**Pimisi Station – Eel Art and Moose Art Installations**

### **Lyon Station**

Work for final architectural finishes, escalator and elevators, fare gates, testing and commissioning of all systems continues.

## **Parliament Station**

Structural steel erection, intumescent painting of the steel at entrances, all shafts (Tunnel Ventilation Shafts (TVS), HVAC and Piston Relief) grates, and fare vending machines are installed. Composite roofing and glazing installations at all three entrances are substantially completed. Permanent electrical power is now in use. Architectural scope as well as mechanical, electrical, HVAC, fire protection the public announcement system, elevators and escalators are substantially completed.

In Q4 2018, the installation of the 23 fare gates and the concourse ceiling is expected to start. It is also expected to achieve substantial completion of this station.

## **Rideau Station**

Completed work includes West TVS shaft structure and surface reinstatement, staircase tiling, east entrance canopy glazing, and east entrance artwork installation.

In Q4 2018, testing and commissioning of station equipment and devices should be substantially completed. It is also expected to achieve substantial completion of the work underway for Rideau station. RTG is working around the clock at this critical station with the City continuing to monitor all aspects of the work.



Rideau Station

## **uOttawa Station**

Completed work includes lighting at sign band, platform edge, roof soffits and lower concourse; exterior stairs leading to lower concourse, glass roofs on platform canopies, main entrance glazing and fare gates; lower concourse fare gates and fare vending machines; wood ceilings at main entrance and above platforms; utility cabinets, heaters in Designated Waiting Areas, sandblasting of platforms and, installation of Tactile Warning Indicators (TWISIs).

## **Lees Station**

Stairs handrails, wood ceilings, multi-use pathway access stairs, tall canted wall glazing, fare gates and fare vending machines, radiant heaters in designated waiting areas, utility cabinets, and installation of public art are all installed. Landscaping is substantially completed.

### **Hurdman Station**

Completed work includes elevator stainless steel cladding, wood ceilings, snow-melt system repairs, signage, wayfinding and utility cabinets. Hard landscaping is substantially completed.

### **Tremblay Station**

Installation of station light fixtures, platform furnishings and final plaza landscaping are all completed.

### **St- Laurent Station**

Installation of finished ceilings, platform furnishings, and public artwork are all completed.

### **Cyrville Station**

Installation of platform furnishings, signage and roof snow dams are all completed.

### **Blair Station**

All fixed station elements are installed with final minor deficiencies and site clean-up ongoing.



Blair Station

### **Guideway**

Restraining rail installation inside the tunnel and track work for the Trillium Line extension at Bayview station has been completed. In Q4 2018, it is expected completion of the work will be achieved.

### **Multi-Use Pathways (MUP), Cycling Lanes and Roadway Re-instatements**

- MUPs: The MUP connection across Riverside Drive overpass has re-opened. MUP paving along the east side of the guideway between Lees Station and uOttawa Station is now complete. Paving of the MUP is planned for Q4 2018 between the Hurdman Station and the Hurdman East overpass;
- Booth St. Connectivity (Cycling Lane Addition): The east and west sections of the sidewalk modifications on Booth Street to incorporate the elevated cycle lane has been substantially completed. The installation of signage, galvanized handrail, pre-cast concrete planter, new bus shelters, and the overall completion of various landscaping elements (tree planting, etc.) are anticipated for Q4 2018; and,
- Reinstatement of Waller Street (south of Laurier Avenue): started in Q3 2018 and is expected to be fully reinstated in Q4 2018.



### **Queen Streetscaping (Bay Street to east of O'Connor Street)**

The Queen Street Streetscaping enhancement project is substantially complete from Bay Street up to mid-block of Bank and O'Connor Street. Base asphalt should be completed on the remaining sections to east of O'Connor Street by the end of Q4 2018, with work being subject to weather conditions.



Queen Street Streetscaping Project

### **Systems, Vehicle, Testing and Commissioning Update:**

- The Overhead Catenary System (OCS) is complete across the alignment;
- Successfully completed a Tunney's Pasture to Blair Station Line Speed test to confirm end-to-end travel time and station dwell times in full CBTC mode;
- Traction Power Sub Station (TPSS) 3 is awaiting hydro connection;
- Train control system integration testing is occurring throughout the alignment;
- P25 radio system is functioning at the Belfast Maintenance and Storage Facility (MSF) and Lyon station;
- Radiax cables, fibre and station conduits installed at all underground stations;
- Devices for communication systems are installed in all stations east of uOttawa Station;
- Installation of communication systems is ongoing at underground stations and between Pimisi and Tunney's Pasture Stations;
- Vehicle tests continue with multi-vehicle and dynamic testing using the Computer Based Train Control (CBTC) on board;
- The last of 34 vehicles is currently in assembly;
- Work on Power Supply & Distribution (PS&D) systems is being completed; and,
- A "Loop test" to demonstrate multiple vehicle operation in Automatic Train Operation (ATO) mode occurred on the eastern alignment.

### **Preparations for Operations:**

- Independent safety auditor has been engaged to review safety requirements;
- On the job training for Electric Rail Operator Instructors (EROIs) continues;
- On the job development and training for Controllers continues;
- Training for Electric Rail Operators (ERO) is ongoing;
- Familiarisation tours for operations staff began in August;
- A full-scale emergency exercise was held in September for first responders;

- Meetings are ongoing with the RCMP, OPP, and Parliamentary Security Services on integrated emergency responses; and,
- Emergency Responder Instructor training is ongoing.



Vehicle testing

### **Key Activities to Monitor:**

With civil construction continuing, the City continues to monitor and track the progress of critical elements. As reported in the recent FEDCO meeting on November 14, several critical elements are being closely monitored as indicators of progress:

- Practice Plan – demonstrating the system is operating as designed – in place;
- Safety and assurance program monitoring leading to confirmation by safety auditor that safety requirements are met;
- Rideau, Parliament and west stations completion;
- Coordination with Building Code Services related to all station occupancy permitting;
- Full complement of vehicle trains (15) operating in full CBTC mode along the entire alignment;
- End-to-end vehicle testing from Blair Station to Tunney's Pasture Station;
- Tunnel Ventilation system commissioning;
- Full fleet and full system operational testing from Blair Station to Tunney's Pasture Station in full CBTC mode;
- SCADA in full operation (system used to monitor and control the LRT); and
- Pre-Trial Running and Trial Running.

In addition, the City is looking ahead to several steps that will move toward the operationalizing of the system. This process includes:

1. RTG successfully launches the Practice Plan;
2. Sign-off by the safety auditor;
3. Achievement of substantial completion and move to trial running;
4. Trial running period;
5. Revenue Service Availability (RSA); and,
6. Train put into service.

City staff and RTG meet regularly to discuss schedules, issues, mitigation strategies and detailed plans.

## **Budget**

September 30, 2018				
Project Description	Authority	Actual Expenditures	Funds reserved	Unspent/ Uncommitted Balance
Confederation Line	2,130,000,000	1,546,339,527	574,821,002	8,839,471
Confederation Line Contingency	100,000,000	45,158,528	58,515,588	(3,674,116)
LRT 417 Widening	224,500,000	223,975,687	200,756	323,557

The Confederation Line Contingency Fund is \$100M. Of this amount, \$45.2M has been spent to date. Remaining funds are earmarked for potential future changes primarily related to property requirements and transit priorities.

When funds are reserved for contract variations, the upset limit for the variation is typically used and upon completion of the work, any unspent monies are returned to the Contingency Fund. For this reason, the funds reserved figure is an estimate that is likely to be higher than the actual amount spent.

As noted in the City Manager's memo of November 2, 2018, since RTG have missed the RSA date, \$1M in liquidated damages will be applied to the next milestone payment.

### ***Stage 2 Light Rail Transit (LRT) Project Update***

#### **Procurement Update**

The Stage 2 procurement process remains on schedule to have recommendations for both the Trillium Line and Confederation Line extension procurements to Committee and Council by Q1 2019

Evaluation of the technical and financial submissions for the Trillium Line Extension Project are complete. Staff's next step is to engage with the first ranked proponent to begin to clarify aspects of their submission to assist in laying the groundwork toward recommending a preferred proponent. In addition, both the technical and financial submissions for the Confederation Line Extension Project have been received by each proponent and the Procurement Team is currently in the midst of the evaluation process for this procurement.

#### **Status of Environmental Assessments**

The City of Ottawa issued a Notice of Completion for the Trillium Line Limebank Extension Environmental Project Report (EPR) Addendum, which outlines adjustments to the functional design of Ellwood Diamond, Walkley Yard Maintenance and Storage Facility (MSF), Bowesville Station and Park and Ride, and the new Limebank Station and associated extension. The City of Ottawa anticipates a decision from the Ministry of Environment, Conservation and Parks (MECP) by mid-November 2018.

The Federal Environmental Effects Evaluations (EEE) for Trillium Line and Confederation Line are nearing completion.

### **Byron Linear Park Tree Relocation Initiatives**

In August 2018, the City of Ottawa was awarded a \$25,000 EcoConnexions grant from Tree Canada and CN to support the relocation of 50 transplantable trees from Byron Linear Park to suitable areas within the local community. This project was one of only 27 across Canada chosen for the CN EcoConnexions grant. Tree Canada lauded the uniqueness of the City's efforts to preserve trees and relocate them in the community ahead of construction.

### **Stage 2 Early Works**

To prepare for Stage 2 LRT construction, the City has undertaken early works that are independent of project design to allow the successful proponent to effectively advance its construction schedule. Late this summer, fibre optic cable along the Osgoode Trail was relocated to prepare for the Trillium Line south extension. Later this fall, trees will be removed near Leitrim Park and Ride to prepare for the future Leitrim LRT Station. The Stage 2 Office will continue to work with Councillors to advise where early works are underway and provide public notification as appropriate.

Should you have any questions, please do not hesitate to contact Steve Cripps at extension 16623 or Chris Swail at extension 12408.

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