

O-Train Confederation Line Project Update



Finance and Economic Development Committee
March 6, 2018

City of Ottawa

Placeholder - Video

 *Ottawa*

Placeholder - Photos

 *Ottawa*

City Priorities

- Ensuring that RTG meets its November 2, 2018 RSA date;
- Ensuring the city receives a safe, reliable and world class LRT system;
- Ensuring that RTG covers all incremental costs resulting from the delay; and,
- Protect the interest of taxpayers, transit users and all resident of Ottawa.



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Additional supports including pipe roofing, lattice girders and face bolts will be installed to reinforce the tunnel.

Systematic drainage and grouting (injection of concrete to reinforce the area) will occur to mitigate any loose or potentially unstable ground;

In accordance with the sequential excavation method (SEM), the tunnel will be mined in small pockets;

Sinkhole Summary of Key Events & Dates

- **June 8, 2016** – Sinkhole occurred on Rideau Street with approximately 50 metres of tunnelling remaining and scheduled for completion in July 2016;
- **June 8, 2016 – July 2, 2016** - Immediate priorities included ground stabilisation, restoration of infrastructure, repair of Rideau Street;
- **July 30, 2016** - RTG resumed tunneling beneath Rideau Street between the Rideau Station cavern and east of Sussex Drive;
- **July 30, 2016** – At the same time, RTG implemented a ground improvement program consisting of jet grouting and compaction grouting to stabilize the ground around and under the concrete plug in the sinkhole area to assist in the excavation of the tunnel;



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Sinkhole

Summary of Key Events & Dates *(Cont'd)*

- **October 3, 2016** – Council advised Rideau Street of the nightly closure of Rideau Street between Sussex and Dalhousie from 8:00 p.m. – 6:00 a.m. to facilitate ground improvement program;
- **October 17, 2016** – Rideau Street closure moves to 24/7 to further facilitate ground improvement program;
- **December 15, 2016** – Rideau Street re-opened to buses and taxis as ground improvement program completed;
- **February 2017** – Tunnel excavation completed 7 months after originally scheduled;
- Downstream effects included delays in completion of:
 - ☐ Underground stations;
 - ☐ Track, guideway, overhead catenary and other systems through the tunnel; and,
 - ☐ End-to-end vehicles and systems.



Key Principles

1. City has always and will continue to ensure RTG is held accountable to the requirements of the Project Agreement; and,
2. The City has a long term partnership with RTG and the City continues to work in partnership with RTG, at the same time ensuring that the taxpayer, transit users and all residents of the city are protected.

Timelines

- RTG indicates immediately following the sinkhole that the effects of the sinkhole will not impact the RSA date of May 24, 2018;
- City monitors schedule / activities and notes slippage in some areas;
- City asks RTG to confirm if May 24, 2018 RSA date is at risk through various forums including:
 - Regular schedule review meetings;
 - Rail Activation Management Program (RAMP), which is the program that management implemented and was reviewed by the City Auditor;
 - RAMP is a structured monitoring program that provides early indications as to whether the program is on track, identifies issues, etc.;



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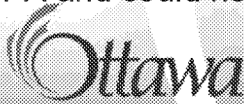
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Timelines (Cont'd)

- Despite the observed schedule slippage, numerous meetings with City Manager, Senior Staff and findings of the RAMP program that indicate that RTG may not achieve the May 2018 RSA date, RTG continues to confirm their position that they will meet the May 24, 2018 RSA date;
- In May 2017, the City commissions an Independent Assessment Team to undertake a review of the schedule and to assess the probability of RTG achieving the May 24, 2018 RSA date;
- The assessment was a joint effort with RTG actively participating undertaken in May 2017 and the findings indicate that RTG would not achieve the May date and that the current schedule provide by RTG would see them achieving RSA in Q4 2018;
- The assessment findings were shared with RTHG and they re-confirmed their belief that they would achieved the May 24 date;
- It is important to note that the city was adhering to the requirements of the PA and could not insist RTG change its position;



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Timelines (Cont'd)

- Leading up to and in preparation of the November notice date of RSA, the City commissions a follow-up assessment in October 2017 and once again the findings indicate that the May 24 RSA date is not achievable;
- On Friday 24 November 2017, RTG submitted correspondence that was not compliant in that it did not confirm if they will achieve the specific revenue service date of May 24, 2018;
- RTG is told to provide either a unconditional May 24 date or a new RSA date in compliance with the Project Agreement;
- If the may 24 RSA date will not be met, RTG is required per the PA to advise the city before January 24, 2018;
- RTG proposes a revised RSA date of August 31, 2018 for the city's consideration;



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Timelines (Cont'd)

- The City instructs RTG to conduct a third review with the independent assessment team on the proposed new RSA date. That assessment concludes that there is an extremely low probability of achieving August 31 RSA date and that Q4 continues to be a more achievable RSA date;
- RTG requests an extension to January 24th 2018 deadline for the issuance of a new RSA date;
- RTG presents a revised detailed schedule that proposed November 2, 2018 as the new RSA date and demonstrate that November 2, 2018 is achievable;
- On February 5, 2018 City receives RTG's new RSA date of November 2, 2018; and,
- RTG notes that the sinkhole from June 2016 has caused the contract schedule to shift.



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RSA Date

- Staff were aware of all contractual provisions and have been and will continue to comply with all provisions of the project agreement;
- City advised RTG that it would not accept a conditional RSA date;
- RTG's notice of November 24, 2017 stated that Revenue Service Availability can be achieved by the required date under the contract (May 24, 2018) "*as such date may be extended due to Delays Events and Variations*". This was not acceptable to the City;
- The schedule issued by RTG on December 7, 2017 demonstrated what the RSA date could look like if all the delays were mitigated.



Bullet # 1 - The following PA provisions and definitions confirm that Monthly Service payments are only due upon the commencement of Maintenance Services, which start at the commencement of Revenue Services and the Project Expiry Date does not change at any time, even in the event of an extension of time granted as result of a Delay Event. This has the effect of RTG permanently losing MSPs for the period of the delay, meaning that the City will never have to pay the amount of circa \$4.7m per month.

1.1 Project Agreement

34.4 Monthly Service Payment Commencement

Subject to and in accordance with this Project Agreement, the City shall pay Project Co the Monthly Service Payments calculated as being due to Project Co in respect of each Contract Month following the Revenue Service Commencement Date in accordance with Schedule 20 □ Payment Mechanism and Schedule 39 □ Operations Matters. Project Co shall not be entitled to any Monthly Service Payments for any period prior to the Revenue Service Commencement Date.

47.4 Automatic Expiry on Expiry Date

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1.3 Schedule 20 – Payment Mechanism

Bullet # 2

2.1 Under the terms of Schedule 37 Mobility Matters, any delay to Revenue Service Availability will have the effect of RTG exceeding the targets for lane closures. Target exceedances result in a payment adjustment to the Revenue Service Availability

payment under the contract in accordance with the formulae stated therein. The penalties are unlimited and could be in excess of \$10million for the delay to Nov 2, 2018.

City Costs - Expenses & Revenues

Staff are currently itemizing all city costs, which will include the following:

- Detours;
- Bus Operations;
- Ready for Rail communication, education and marketing campaign;
- Traffic;
- Property costs;
- Lost revenue for OC Transpo due to delay;
- Etc.

The amount of these costs are in line with what has been previously shared with Members of Council. Detailed breakdown form part of the negotiations with RTG and will remain confidential at this time.

The amount per month not required to pay the Consortium for operations when the O-Train is in full service is approximately \$4M/month.



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City Costs - Expenses & Revenues (Cont'd)

- The 2018 Budget included increased fare revenue budget scheduled to begin in July. That can now be expected to begin post November 2, 2018;
- The 2018 budget includes an expectation that there will be a one percent increase in ridership beginning with the opening of the O-Train Confederation Line;
- The budget calculations were based on the line opening at mid-year, and the ridership increase would have generated \$1.83 million in fare revenue over the 26 weeks in the second half of the year; and,
- With a 23.1 week delay, 89 percent (23.1/26), or \$1.63 million, of this budgeted revenue can no longer be expected in 2018.



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Liquidated Damages

- Liquidated Damages apply whenever RTG provides a Revenue Service Availability (RSA) date and fails to achieve that date;
- This would not apply (the failure to achieve RSA) as a result of a valid Delay Event, as defined under Section 40 of the PA;
- The \$1 million of Liquidated Damages will be applied if the November 2, 2018 date is missed;
- If RTG were to provide a new RSA date and subsequently missed that date, Liquidated Damages would apply again; and,
- There is no limit to the number of times this could occur between Nov 2, 2018 and the Longstop Date (default of contract) of May 24, 2019;
- Liquidate damages are not a penalty, but, rather, are a genuine and reasonable pre-estimate of damages made at the time the contract is entered into.



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Delay Claims / Events

- The City's opinion is that the sinkhole did not constitute a Delay Event as defined in Section 40 of the PA;
- RTG submitted a Relief Event Notice for the sinkhole and a corresponding Delay Event Notice for delays they believed would be incurred as a result of the Relief Event;
- A Delay Event would only be considered if a Relief event is found to have happened;
- In our opinion, RTG is not entitled to a Relief Event on the grounds that the sinkhole was a result of their acts and omissions;
- Under the terms of the PA, both parties have a general duty to mitigate the effects of these events immediately upon their occurrence;
- RTG is obligated to use "commercially reasonable efforts" to reduce or eliminate the effects of the sinkhole;



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Delay Claims / Events (Cont'd)

- RTG immediately implemented measures to stabilize the ground conditions and develop proposals to recommence tunneling as soon as reasonably practicable;
- RTG continue to mitigate the effects of the sinkhole event;
- RTG has acknowledged that the sinkhole had a significant impact on the project;
- RTG also claims to be delayed by other factors, in addition to the sinkhole, such as the change in ceiling material and weather protection for fare control equipment;
- The City has rejected both of these claims in writing and they remain a matter of dispute between the parties; and,
- In the event of any further dispute, refer the matter to the Independent Certifier for determination following the Dispute Resolution Procedure is followed.



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Basis For Negotiation

In order to fully recover our costs and lost revenues the City will:

- Negotiate with RTG;
- Use budgeted Monthly Service Payments (MSPs) that are foregone as a result of RSA being November 2, 2018 rather than May 24, 2018;
- Ensure the full application of the Painshare for Mobility Matters targets for BRT and general Lane Closures;
- Ensure the full application of other Project Agreement provisions which may be applicable;
- Penalties for exceeding Mobility Matters targets for BRT and General Lane Closures;
- The PA contains a Dispute Resolution provision that could also be used to pursue the City's costs, potentially resulting in arbitration or litigation;



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Basis For Negotiation *(Cont'd)*

- Monthly Service payments are only due upon the commencement of the Maintenance Services term, which start once Revenue Service Availability is achieved (when RTG hands the system over to the City);
- The Project Expiry Date does not change. This has the effect of RTG permanently losing Maintenance Service Payments for the period of the delay;
- As part of our negotiations with RTG, the City will consider extending the expiry date to maintain the 30-year term;
- It is the City's position that RTG will be covering all incremental costs; and,
- The city is using the project framework including the payment schedule and the term of the maintenance contract, as leverage to seek reimbursement of the city's additional costs.



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Other City Obligations

- The delay to Revenue Service Availability has had no effect on the provisions of the PA in respect to the City's obligations to make these payments;
- Milestone payments are made when the work defined in the milestone is completed; and,
- Payments are subject to the City's and the Independent Certifier's opinion as to whether the conditions for issuance of the Milestone Certificate, the Substantial Completion Certificate or Revenue Service Availability Certificate have been satisfied.



The terms Milestone, Substantial Completion and Revenue Service Availability, including all other corresponding terms, are strictly defined in Schedule 1 to the PA and the requirements for such are contained throughout the entire PA and are too numerous to list here.

Approvals For Cash Flow To RTG

- The City controls the flow of cash to RTG for the remainder of the project;
- The City would only consider early payment if both the City and the Project would benefit from such an arrangement, and it is in the best interest of taxpayers;
- The City will not pay more than 80% of the Cost of Work performed at any time, in accordance with how the financial model is structured;
- This ensures that RTG remains financially incentivised with their 20% investment of equity and senior debt; and,
- The approval to proceed with such an arrangement would remain with the City Manager and results would be reported to FEDCO.

Stage 2 Project Agreements

The City has taken a number of steps to ensure knowledge transfer from the Stage 1 to the Stage 2 procurements:

- Commissioning of the Deloitte Lessons Learned Report distributed to Council in December 2015 and available on the Stage 2 project website;
- An Interdepartmental Lesson Learned Exercise lead by the O-Train Planning Office; and,
- Consolidating both projects under the Transportation Services Department to ensure knowledge transfer in real time.

These lessons learned also have been supplemented by ongoing research into recent industry experience and best practices.



Lessons Learned (Project Delay)

- Based on these lessons learned and considerations related to each procurement structure (Trillium and Confederation Line), staff reviewed four key construction performance regimes.
- Enhancements were identified and made with the **Liquidated Damages** (LDs) Regime:
 - Increased penalties for delay, and greater clarity to indemnify the City for any Direct Losses resulting from a delay event;
- The construction progress payments that Project Co. received in Stage 1 have been changed from a **Milestone Payment** regime to an **Earned Value** regime in both Stage 2 Procurements; and,
 - Builder decides sequencing of work and is paid for actuals. Enables greater flexibility and minimizes risk.
- Both **Mobility Matters** (costs for traffic disruptions) and the **Lender Discipline** derived from the internal private financing structure of Stage 1 were determined to be working well.

Liquidated Damages (Stage 2)

- 180 days before each of the Proponent's scheduled completion dates (East or West Extension; or 417 works), they are required to provide a notice to the City advising they will meet their scheduled completion date for each of these three major project element;
- If no notice is provided, they will be deemed to have not met their scheduled date, and will pay the City a penalty (\$1M for East or West extension, and/or \$500k for 417 works). In addition, they will pay a daily amount \$15-35k (depending on project element) until a notice providing a new completion date is provided;
- If the contractor provides a notice and misses the completion date without advising the City of a new date, they will pay \$1M and the daily rate per above until a new notice is provided;
- If the contractor provides a notice and then advises the City of a change to their completion date, they pay a sliding scale amount from \$25k-\$1M depending on how soon they notify the City from the initial notice date; and,
- The total amount payable to the City under this regime is capped at \$10M.
- A similar regime is in place for Trillium Line with slightly different amounts.

Working Well: Lender Discipline

- The Proponent repays monies loaned to them by their Lender in accordance with the Project Agreement's construction schedule;
- If construction is delayed, the Lender still required receive these scheduled repayments;
- This drives speedy schedule recovery because if DBCO is late they are making these repayments (both interest and principle) to their lender while they are not getting paid for construction completion.
- Just like a credit card repayment, if you are late with any repayment, it cost you more than making your payments on time. And in DBCO's case, late Lender repayments result in increased interest costs that were not anticipated or accounted for in their business model.

Confederation Line Revenue Service Availability

- The City has also removed the concept of Revenue Service Availability from the Confederation Line extensions;
- Once DBCO has completed all of their responsibilities – they get paid for Substantial Completion; and,
- The City will then oversee the process to receive the system and will set the commencement date to go into service.

Summary

- November 24, 2017 Notice from RTG was ambiguous, leaving uncertainty as to the date Revenue Service would actually be achieved;
- December 7, 2017 Schedule did not provide the City with clarity on the RSA date;
- The City has rejected RTG's Delay Event claims;
- The City met with RTG with the objective of securing a schedule that has a reasonable certainty of success;
- Numerous discussions between the parties led to RTG's letter of Feb 5, 2018 confirming Revenue Service Availability will be achieved by Nov 2, 2018; and,
- All delay claims remain outstanding but we are committed to achieving an outcome that provides schedule certainty, delivery of a World Class system to the highest standards of safety and quality and at no additional cost to the tax payer.



NTD – the following paragraphs provide more information than what is being asked for. It is intended to explain what we did in response to the Dec 7 schedule and how we got to Nov 2, 2018. This can be removed if preferred]

Next Steps

- Negotiate cost recovery with RTG;
- Monitor RTG's Schedules and their continued adherence to November 2, 2018 RSA;
- The City may also seek to pursue or preserve its rights and negotiation positions (which may involve simultaneously pursuing Dispute Resolution / claims;
- Provide monthly reports to FEDCO; and,
- The City is committed to achieving an outcome that provides schedule certainty, delivery of a World Class system to the highest standard of safety and quality at no additional cost to the taxpayer.



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