

IN THE MATTER OF THE OTTAWA LIGHT RAIL TRANSIT PUBLIC INQUIRY

The Honourable Justice William Hourigan, Commissioner

CLOSING STATEMENT OF THE RTG PARTIES

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PART I. OVERVIEW

1. While the path to the completed Confederation Line has had its challenges, that should not detract from the ultimate result. The Confederation Line is a significant achievement of engineering and a state-of-the-art light rail transit system that will benefit generations of Ottawa's residents.

2. In many ways, the problems that arose during the construction and launch of the system—delays to the originally-projected completion date and reliability problems with the vehicles that disrupted service—were reasonably common problems for a complex infrastructure project like this one. Many experts and career infrastructure professionals, with experience from around the globe, testified during this inquiry that delays are more common than not, and that there is always some degree of a reliability growth period when a new system launches. The expert panel noted that only 3 out of 100 rail projects are on schedule and on budget. The expert panel also observed that with respect to the metrics of being on time, on budget, and providing actual project benefits: only two out of every 1000 projects met all three of those metrics. In other words, eighty years of rail project data demonstrates that 99.8% of rail projects will either be “over-budget, over time or under benefits.”¹

3. The problems with the project had an outsized impact on Ottawa's residents because their municipal government set unrealistic expectations. Elected officials promised the public a turnkey system and campaigned on delivering it with no delays. When their own advisors warned them that no complex transit system, newly-built and operated, would launch problem-free, the political

¹ Expert Panel on Public-Private Partnerships, Presentation by Dr. Bent Flyvbjerg, Transcript Vol. 19, pg. 5, lines 7-8, TRN00000212. Professor Flyvbjerg provided also three metrics for assessing a project's success: (1) budget; (2) schedule; and (3) project benefits: see his detailed discussion on this at Expert Panel on Public-Private Partnerships, Presentation by Dr. Bent Flyvbjerg, Transcript Vol. 19, pg. 5-7, TRN00000212.

die was already cast. The positions the City and its elected officials had staked out over the life of the project limited their ability to collaborate with their contractor, the RTG Parties,² and to communicate in a more forthright manner with the public about the challenges the project faced, and the timeline in which the public should expect them to be resolved.

4. The RTG Parties acknowledge that there were some issues on the project. For instance, there were significant problems with the reliability of Alstom's vehicles and Alstom's ability to perform its maintenance obligations. The RTG Parties expected more from a company purporting to be a world-class vehicle manufacturer. The RTG Parties hope that going forward, Alstom remains singularly focused on improving the reliability of their vehicles and ongoing maintenance obligations.

5. The Inquiry into the Confederation Line has provided many lessons to public authorities and contractors about how to achieve their shared goal of building public infrastructure with less acrimony and a more efficient application of resources.

PART II. SUMMARY OF EVIDENCE AND ISSUES

A. Procurement Phase

1. The RTG Parties' careful approach to the procurement process

6. The RTG Parties are among the largest infrastructure companies in Canada and the world. They are very experienced at preparing winning bids on large P3 projects, and at successfully delivering the projects they are awarded.

² The RTG Parties are, or are affiliates of, EllisDon Corporation, SNC-Lavalin Group, ACS Infrastructure Canada Inc and Dragados Canada, Inc, all leaders in infrastructure. They comprise Rideau Transit Group General Partnership, including ACS RTG Partner Inc., SNC RTG Partner Inc., EllisDon RTG Partner Inc., OLRT Constructors, an unincorporated joint venture consisting of Dragados Canada, Inc., EllisDon Corporation and SNC-Lavalin Constructors (Pacific) Inc., and Rideau Transit Maintenance General Partnership, including ACS RT Maintenance Partner Inc., ProTrans RT Maintenance Partner Inc., and EllisDon RT Maintenance Partner Inc.

7. This view is shared by experienced industry professionals. For example, John Traianopoulos, Infrastructure Ontario's ("IO") Project Finance Manager, said that IO was comfortable that the qualified bidders (including the RTG Parties) took the time and effort to price their bids properly, given their sophistication and experience.³ IO trusted that the RTG Parties could assess the risks and take on only what they could honour.⁴

8. The bid that the RTG Parties put forward was based on months of planning and analysis. Taking such care when preparing a bid on a complex project only makes good commercial sense, and the parent companies of the RTG Parties are industry leaders who put forward bids carefully and thoughtfully. It is costly to prepare a bid for a large project and doing so involves the allocation of significant resources that cannot then be deployed on other projects or pursuits.

9. Bidding on a complex P3 project requires such particular care as these projects are traditionally fixed-price contracts that include a lengthy design-build and maintenance phase. An experienced proponent must be confident that the outcome will be commercially successful and that it will meet its obligations. Under a fixed price contract, the private sector company bears the risk of most cost overruns and delays and has obligations to their lenders (which, as discussed further below, are third parties in all other projects of which we are aware). This imposed a discipline on the RTG Parties to ensure that their bid pricing and scheduling was realistic.

10. For example, the RTG Parties included a risk contingency as a buffer to mitigate against risks for which the RTG Parties are responsible under the Project Agreement when determining the bid price. The RTG Parties considered, for instance, the lifespan of the project with input from

³ Examination of John Traianopoulos, Transcript Vol. 3, pg. 30, lines 3-5, TRN00000185.

⁴ Cross-Examination of Rob Pattison, Transcript Vol. 2, pg. 57, lines 7-15, TRN00000184.

the maintenance team⁵ and factored the geotechnical risk into the planning and bid pricing. The RTG Parties felt that they could mitigate some of the geotechnical risk with their excavation technique.⁶

11. When selecting their proposed vehicle, the RTG Parties evaluated LRT components from the world's leading suppliers and measured them against the conditions and project requirements in Ottawa.⁷ To assess the completion date, due diligence was conducted to determine if the City's proposed date was achievable. The date selection was closely linked to the budget, since the faster one delivers, the more expensive construction is, although a long construction schedule can also result in accumulated costs.⁸ Dr. Bent Flyvbjerg, BT Professor Major Programme Management Emeritus from the University of Oxford, observed that "...the shorter you can make a project, the small[er] cost overruns you will have."⁹ Ultimately, the proposed date was the best estimate to balance these risks.¹⁰

12. However, no contract for a major construction or infrastructure project can anticipate all potential events affecting a project or address all issues that may be encountered. As Dr. Flyvbjerg noted, while parties cannot anticipate the issues that will arise, they can and should anticipate that it is inevitable that issues *will* necessarily materialize. Specific issues can (and in this case did) arise of such magnitude that a project team, even a very sophisticated and experienced project team, simply could not have reasonably contemplated during the procurement, like the sinkhole

⁵ Cross-Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 157, lines 1-6, TRN00000178.

⁶ Examination of Riccardo Cosentino, Transcript Vol 1., pg. 126-127, lines 28-2, TRN00000178.

⁷ Cross-Examination of John Jensen, Transcript Vol. 1, pg. 89-90, lines 20-2, TRN00000178.

⁸ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 109, lines 10-19, TRN00000178.

⁹ Expert Panel on Public-Private Partnerships, Presentation by Dr. Bent Flyvbjerg, Transcript Vol. 19, pg. 13, lines 25-26, TRN00000212.

¹⁰ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 110, lines 1-6, TRN00000178.

(described below).¹¹ As described by Riccardo Cosentino, the RTG Parties' bid director and a seasoned industry professional, no one has perfect insight into this risk, so there are always some assumptions and unknowns when preparing the bid.¹²

13. Similarly, while the RTG Parties conducted extensive due diligence on the vehicles and their production dates, there is always a risk that external, previously unanticipated, factors might materialize. This was the case with the vehicles on the project because of, for example, the City's late design book approval as well as production issues at Alstom, which both delayed the project and increased costs.¹³

14. This does not mean that the RTG Parties bid unrealistically or overly optimistically. Rather, it reflects the reality that facts on the ground often overtake even the most thoughtful and considered bid analysis.

15. For its part, despite the at-times highly litigious approach the City has adopted on this project, the City has not alleged that the RTG Parties' bid was unrealistic or overly optimistic. At financial close, the City expressed no concerns with the RTG Parties' bid. There were no red flags and when IO posed questions regarding the bid, they found the responses satisfactory.¹⁴ Nancy Schepers, the Deputy City Manager at the City, gave evidence that she thought "the City had selected a good partner in RTG".¹⁵ Both parties entered the contract with the best of intentions to deliver quality light rail service to the people of Ottawa and with full transparency.

¹¹ Examination of Rob Pattison, Transcript Vol. 2, pg. 71, lines 6-12, TRN00000184.

¹² Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 128, lines 1-4, TRN00000178.

¹³ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 110, lines 15-18, TRN00000178.

¹⁴ Cross-Examination of John Traianopoulos, Transcript Vol. 3, pg. 64, lines 23-27, TRN00000185.

¹⁵ Cross-Examination of Nancy Schepers, Transcript Vol. 3, pg. 151, lines 7-10, TRN00000185.

2. The City's political motivations and affordability cap created challenges for the RTG Parties

16. While the RTG Parties believed their bid was realistic and achievable, the City's approach to the procurement created challenges. In contrast to the RTG Parties, the City had very limited experience or expertise in-house to undertake a procurement of this magnitude. Dr. Flyvbjerg noted that in the UK, the public sector is missing expertise with respect to major projects.¹⁶ That seemed to be the case with the City as well.

17. For that reason, the City engaged numerous outside consultants to advise the City at different stages of the project, including Capital Transit Partners (a joint venture between Morrison Hershfield Ltd., Jacobs Associates Canada Corporation, STV Consulting (Canada) Inc., and AECOM), as well as IO, and Deloitte. The City also engaged Boxfish Infrastructure Group ("Boxfish") as a consultant. Brian Guest, Boxfish's lead consultant, confirmed that he did not have experience with a light rail project of anything like the size or complexity of the Confederation Line,¹⁷ nor any P3 experience.¹⁸

18. Often, however, the City seemed driven by political motivations more so than the advice these consultants provided. One such example was that during 2009 the \$2.1 billion "budget" was considered a cost estimate: it was a figure that, at this time, was subject to change.¹⁹ In fact, the City itself estimated that the \$2.1 billion cost estimate could fluctuate as much as 25%, which Ms.

¹⁶ Expert Panel on Public-Private Partnerships, Presentation by Dr. Bent Flyvbjerg, Transcript Vol. 19, pg. 15, lines 7-15, TRN00000212.

¹⁷ Examination of Brian Guest, Transcript Vol. 11, pg. 123, lines 12-15, TRN00000200.

¹⁸ Examination of Brian Guest, Transcript Vol. 11, pg. 123, lines 14-15, TRN00000200.

¹⁹ Examination of Nancy Schepers, Transcript Vol. 3, pg. 116, lines 20-23, TRN00000185.

Schepers agreed was a “fairly substantial swing”.²⁰ Yet, the Mayor of Ottawa during his election campaign in 2010 declared that the project would be delivered for no more than \$2.1 billion, despite the fact that this figure was merely an estimate and not an actual budget.

19. Several stakeholders expressed concerns about the affordability cap for the project. Early in the procurement process, the RTG Parties told the City that the cap would not be met easily.²¹ Robert Pattison, IO’s lead on the project, also raised concerns that the procurement might not be successful given the budget.²² From the perspective of the RTG Parties, the City appeared to approach the procurement with an unrealistic appreciation of the size, scope, and complexity of the project, and a particular focus on the grandeur and aesthetics of stations, which consumed a lot of the available budget.

20. In principle, unless a budget is mired in “political bias” (as explained by Dr. Flyvbjerg²³), it is not in itself a problem: the budget gives bidding parties an opportunity to innovate solutions to deliver the desired project within the budgetary constraints. In this case, however, the output specifications required by the City were so detailed that they limited the bidding proponents’ ability to innovate. By putting out a request for proposals (“RFP”) with both an aggressive budgetary envelope and unusually detailed specifications, the City constrained its own ability to benefit from the innovative capabilities of the private sector (to develop cost-effective solutions for delivering the asset that would meet the City’s needs within the affordability cap).

²⁰ Examination of Nancy Schepers, Transcript Vol. 3, pg. 118, lines 13-15, TRN00000185.

²¹ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 117, lines 18-20, TRN00000178.

²² Examination of Rob Pattison, Transcript Vol. 2, pg. 35, lines 3-14, TRN00000184.

²³ Expert Panel on Public-Private Partnerships, Presentation by Dr. Bent Flyvbjerg, Transcript Vol. 19, pg. 10, lines 1-10, TRN00000212.

21. Often, the affordability cap is not a hard ceiling that bidders will be disqualified for exceeding, but a target that the City can bypass if it finds that bids that exceed the affordability cap are attractive and worth consideration.²⁴ In practice, however, the affordability cap did in fact operate as a ceiling on this project. Marian Simulik, the City Treasurer, agreed that the City informed the proponents that as long as one technically compliant bid came below the affordability cap, then any bids above the affordability cap would not be considered in the evaluation process.²⁵ The political reality was that any change to the budget would have to be approved by City council (including by the Mayor and his allies who had staked their political reputations on the \$2.1 billion budget for the project).²⁶ The clear message that the RTG Parties received from the City was that the \$2.1 billion budget was of primary importance.²⁷

22. While it was open to the bidders to propose changes to the Project Agreement during the procurement, the City, who had prepared the Project Agreement (with input from IO), ultimately had the final say with respect to any changes. There were some discussions between the City and proponents that resulted in changes to the RFP specifications, but these changes were relatively minor in nature²⁸ and did not address the more fundamental tension between, on the one hand, the limited budget for the project and, on the other, the highly prescriptive output specifications the City required.

²⁴ Cross-Examination of Rob Pattison, Transcript Vol. 2, pg. 64-65, lines 15-4, TRN00000184.

²⁵ Examination of Marian Simulik, Transcript Vol. 2, pg. 115-116, lines 18-28, 1-10, TRN00000184.

²⁶ Cross-Examination of Marian Simulik, Transcript Vol. 2, pg. 178, lines 17-22, TRN00000184.

²⁷ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 113, lines 14-18, TRN00000178.

²⁸ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 117, lines 24-28, TRN00000178.

23. Even though the City's politically driven approach to the procurement was far from ideal, Mr. Cosentino still believed that the budget put forward in the RTG Parties' bid was sufficient to deliver the project, based on the numerous analyses and risk assessments that were performed.²⁹

3. Optimism bias is a concern that the public sector stakeholders must account for

24. Optimism bias is a subconscious tendency of all people in pursuit of an outcome to rationalize decisions or actions in a way that discounts the risks of negative events. It is a widespread phenomenon that goes beyond the P3 model and rail projects.³⁰ This bias is often pronounced in major projects because of the complexities, assumptions, and incentives involved. Whenever an estimate is made, there is a potential for optimism bias to affect decision making.

25. In his expert testimony, Dr. Flyvbjerg, noted that research has shown that only 3 out of 100 rail projects are on schedule and on budget.³¹ Dr. Flyvbjerg believes that the under-estimation of risk is a root cause of these delays and overruns, which results in the project risk being underestimated.³² Dr. Flyvbjerg cited the confidence of buyers (in this case, the City) as one of the root causes of under-estimating risk. It is incumbent on the public sector to budget for all the contingent liabilities they would be responsible for under the Project Agreement.³³

²⁹ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 111, lines 14-16, TRN00000178.

³¹ Expert Panel on Public-Private Partnerships, Presentation by Dr. Bent Flyvbjerg, Transcript Vol. 19, pg. 4, lines 24-28, TRN00000212.

³² Expert Panel on Public-Private Partnerships, Presentation by Dr. Bent Flyvbjerg, Transcript Vol. 19, pg. 7, lines 21-23, TRN00000212.

³³ Expert Panel on Public-Private Partnerships, Presentation by Dr. Bent Flyvbjerg, Transcript Vol. 19, pg. 7, lines 25-26, TRN00000212.

26. Optimism bias is a structural problem inherent to the system itself and therefore requires a structural solution. Governments, which can establish rules of general application, not the private sector, are best positioned to implement a structural solution across the market.

27. While optimism bias is a structural issue affecting all stakeholders, the RTG Parties performed risk and schedule analysis and used the tools available in the industry to understand the risk they were taking on and mitigate the risk of optimism bias. For example, with respect to the geotechnical risk, the RTG Parties undertook a geotechnical ground investigation including an analysis of the ground condition based on bore holes.³⁴ The RTG Parties also undertook a Monte Carlo analysis, a simulation-based risk modelling technique that produces expected values and confidence intervals. The consortium partners and their parent companies had significant tunnelling experience. Similarly, third party investors were involved during the procurement phase to combat against these risks; investors act as a counterweight to optimism bias by scrutinizing the budget from an outside perspective.³⁵ Taken together, the RTG Parties met the applicable standard for risk assessment prevalent within the industry at the time of the procurement.

28. In contrast to the precautions taken by the RTG Parties, the City was focussed on achieving the project within its affordability cap and incentivized bids that fell within that cap through the structuring of the procurement process. It does not appear that the City, unlike the RTG Parties, applied the available tools to assess the relevant risks. It instead designed a process that would achieve a desired outcome (i.e., meeting the affordability cap that elected officials had campaigned on achieving).

³⁴ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 127, lines 8-11, TRN00000178.

³⁵ Expert Panel on Public-Private Partnerships, Presentation by Dr. Matti Siemiatycki, Transcript Vol. 19, pg. 25, lines 6-10, TRN00000212.

29. Dr. Flyvbjerg observed as follows in respect of the relationship between power bias and cognitive bias:

...So power bias and cognitive bias reinforce each other. So the more powerful you are, the more likely you are to have lots of cognitive biases and also the more likely you are to practise political bias. So you get this vicious circle where these biases are growing, the higher up you get in the organization.³⁶

30. This vicious circle was exemplified in this project: as discussed earlier, Mayor Watson declared that the project would be completed for \$2.1 billion during his election campaign even though this figure—based on the evidence of the City’s Deputy Manager—was an estimate and could fluctuate as much as 25%. When the Mayor took such a step for perceived political gain, it etched the \$2.1 billion figure in stone for City staffers. The result was that, as Dr. Flyvbjerg indicated does occur on projects, “everybody start[ed] internalizing and becom[ing] very optimistic about this project...and not even thinking about it [i.e. the figure].”³⁷

31. Ultimately, the issues that arose on the project did not result from an unrealistic bid, but rather from unforeseen, unlikely, and major events, such as the sinkhole and the City’s approach following the sinkhole. There is no evidence to suggest that these unlikely and unforeseen events were not appropriately accounted for due to an overly optimistic approach adopted by the RTG Parties to the procurement process.

³⁶ Expert Panel on Public-Private Partnerships, Presentation by Dr. Bent Flyvbjerg, Transcript Vol. 19, pg. 10, lines 2-5, TRN00000212.

³⁷ Expert Panel on Public-Private Partnerships, Presentation by Dr. Bent Flyvbjerg, Transcript Vol. 19, pg. 10, lines 6-10, TRN00000212.

4. The City rejected the RTG Parties' preferred vehicle

32. A major issue with the procurement was the City's prescriptive specifications for the vehicle. The evidence does not paint a clear picture of why the City made many of the choices that it made in the output specifications or went into the level of detail that it did. Some of these choices included providing for low-floor vehicles, a communication-based train control system in conjunction with automatic train operation, a maximum speed of 100 km/h, a low temperature requirement of -38 C, 1500 V traction power supply, and the requirement that the vehicles perform at the same level regardless of weather conditions.³⁸

33. Not all these specifications were necessary for the project's success. For example, since the vehicles have a segregated right-of-way and station platforms, the low-floor design was not required and was of little benefit to the project. It was inconsistent with the speed requirement given that low-floor vehicles have smaller wheels.³⁹ To encourage innovation by the private sector partner, the City should have focused on performance-based specifications that allowed for discretion and innovation rather than the overly prescriptive specifications it required.⁴⁰

34. The vehicle supplier was selected after a committee process undertaken by the RTG Parties and presented to the City.⁴¹ Although the RTG Parties considered Alstom, it was not initially their

³⁸ Examination John Jensen, Transcript Vol. 1, pg. 40-41, lines 11-25, TRN00000178.

³⁹ Cross-Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 178, lines 5-13, TRN00000178.

⁴⁰ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 131-132, lines 22-7, TRN00000178.

⁴¹ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 122, lines 1-2, TRN00000178.

preferred supplier selected through the committee process.⁴² At the outset of the procurement, the RTG Parties' preferred vehicle supplier was CAF.⁴³

35. However, the City expressed concerns about the CAF proposal.⁴⁴

36. In an attempt to address the City's concerns, RTG and CAF representatives met with the City. CAF gave a detailed explanation of how the proposed vehicle met the City's specifications.⁴⁵ Nevertheless, the City informed RTG that if they proceeded with CAF, their bid would be rejected.⁴⁶

37. The City did not accept CAF as a vehicle supplier largely because only the vehicle components, rather than the entire vehicle, were "service proven".⁴⁷ However, the RTG Parties advised the City that the specifications the City was looking for did not exist in a service proven vehicle anywhere in the world.⁴⁸

38. The City's preferred vehicle was Alstom's Citadis Dualis. However, there is extensive evidence in the record, including from Alstom's own witnesses, that the vehicles Alstom was to supply for the Ottawa LRT were not service proven, despite this being the stated basis upon which the City preferred them. Yves Declercq from Alstom described that on this project, Alstom "assembled components that were 'service proven' in a specific diagram customised to the

⁴² Examination of Yves Declercq, Transcript Vol. 4 (Translated), pg. 11, lines 10-16, TRN00000210.

⁴³ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 121, lines 1-2, TRN00000178.

⁴⁴ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 121-122, lines 16-28, TRN00000178.

⁴⁵ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 123, lines 6-15, TRN00000178.

⁴⁶ Formal Interview of Riccardo Cosentino, pg. 35, lines 9-14, TRN00000193.

⁴⁷ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 122, lines 10-17, TRN00000178.

⁴⁸ Examination of John Jensen, Transcript Vol. 1, pg. 49, lines 5-24, TRN00000178.

customer's operating needs."⁴⁹ To be viable in Ottawa and meet the requirements of the Project Agreement, Alstom's Citadis Dualis required numerous modifications such that it became essentially a different vehicle from the proven technology that Alstom marketed, and the City sought. As Alstom pointed out in its Opening Statement, it had to make extensive modifications to the Citadis vehicle to meet the City's specific performance requirements including changing the Citadis platform for fire safety standards, shell design, height, and weight dynamics, making the LRVs longer to fit more passengers, and equipping the vehicles to operate at faster speeds with significantly reduced headway.⁵⁰

39. In these circumstances, it was (and remains) unclear to the RTG Parties why the City preferred Alstom as a supplier, since, like CAF, Alstom would not be delivering a service proven vehicle, but rather, a vehicle designed to the RFP's detailed specifications that used primarily service proven components. Ultimately, given the City's resistance to CAF and preference for Alstom, the RTG Parties opted to proceed with the Alstom vehicle (and Alstom generally as a subcontractor). Alstom was the only option available to the RTG Parties due to the City's specifications and the fact that other potential suppliers were committed on other bids. In examination, Mr. Cosentino stated that the RTG Parties "didn't have a choice".⁵¹

40. The Ottawa LRT project was Alstom's first entry into the North American LRT market and they treated it as a development project to increase Alstom's market share in North America.⁵² As a result, Alstom selected suppliers who were able to meet the Canadian content requirements

⁴⁹ Examination of Yves Declercq, Transcript Vol. 4 (Translated), pg. 52, lines 11-14, TRN00000210.

⁵⁰ Opening Statement of Alstom Transport Canada Inc., para. 16, COMH0000012.

⁵¹ Cross-Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 177, lines 1-2, TRN00000178.

⁵² Cross-Examination of Lowell Goudge, Transcript Vol. 7, pg. 74, lines 17-21, TRN00000191.

of the Project Agreement as well as the higher US content requirement to build a supply chain for future projects across the continent.⁵³ This overly ambitious goal led to more supply chain issues than expected.⁵⁴

41. All these factors were known to the City at the time that it was considering the bids. Despite that, the City had no concerns about Alstom being chosen as RTG's vehicle supplier, and found that the Citadis Dualis was "service proven" while CAF's vehicle was not.⁵⁵ It is not clear why the City thought it was in a better position than the RTG Parties to determine the vehicle supplier that would be best able to help the RTG Parties deliver on their obligations, but it *is* clear that the City's determination to reject CAF in favour of Alstom did not give the City any of the reliability advantages it believed it would obtain through its interpretation and application of the "service proven" requirement.

5. There was an ineffective distribution of responsibility and risk

42. The P3 model is intended to transfer risks to the party best able to assume those risks. The risk transfer distribution on this Project did not strike a balance that optimized Project outcomes, as is clear from the schedule delays, the cost overruns and the many disputes and conflicts that exist between the Project stakeholders. As Mr. Cosentino described, there was greater effort to transfer risk to the private sector on this project than is typical.⁵⁶

⁵³ Cross-Examination of Lowell Goudge, Transcript Vol. 7, pg. 75, lines 2-13, TRN00000191.

⁵⁴ Examination of Lowell Goudge, Transcript Vol. 7, pg. 9, lines 14-20, TRN00000191.

⁵⁵ Cross-Examination of John Jensen, Transcript Vol. 1, pg. 92, lines 19-23, TRN00000178.

⁵⁶ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 130, lines 2-17, TRN00000178.

43. This was especially the case with the geotechnical risk. The proponents were able to choose the level of risk that they were willing to tolerate through the risk ladder.⁵⁷ The risk ladder rewarded the proponent who took on 100% of the risk with a net present value credit of \$80 million. This is a significant incentive in a price-driven selection process.⁵⁸ In particular, such provisions put proponents in a situation where there is diminished choice: all proponents are under the same pressure to accept the risk to avoid losing the procurement.

44. Instead of acting as an effective tool to ensure that an appropriate level of risk was assumed by proponents, the risk ladder encouraged a competitive tension that resulted in a greater level of risk being assumed by the proponents without the ability of the proponents to appropriately price such risks due to the presence of the affordability cap.

45. There are, however, limits on the scales of risk that the private sector can practically assume and there are only so many aspects of a “risk” that a contract can successfully transfer from one party to another. Through the risk ladder, what the RTG Parties took on were, subject to supervening events, the ultimate financial consequences of some of the geotechnical events relating to the project, and the corresponding responsibility to avoid and mitigate those risks and rectify the consequences should such events transpire.

46. The transfer of financial risk does not diminish the partnership and cooperation required between the parties to a contract. Many events come with consequences that will be felt by both parties given their joint ownership in the outcomes of the Project, regardless of how the Project Agreement allocates the financial consequences of those events or the responsibility to rectify or

⁵⁷ Cross-Examination of John Jensen, Transcript Vol. 1, pg. 94, lines 9-27, TRN00000178.

⁵⁸ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 127, lines 5-8, TRN00000178.

mitigate them. For example, no contractual language could effectively transfer away from the City the risk that delays in delivering a major project will frustrate the public to which the City is ultimately accountable. Dr. Matti Siemiatycki, Director of the Infrastructure Institute at the School of Cities at the University of Toronto, explained this phenomenon as follows:

And one of the big questions is whether risks that are transferred on paper actually get handled in practice when they occur, or whether they reverberate back to the government [once] they get to a scale that's too big for the private sector to bear, and that's the idea of the public sector being the risk-holder of last resort.⁵⁹

47. This is a reality that the City appears not to have adequately considered in its pursuit of a successful project delivery model or in its dealings with the RTG Parties. In many ways, the City acted as though its dealings with the RTG Parties were zero sum and that it should be insulated from playing any role or addressing any consequences whatsoever should something like a sinkhole occur, simply because the City understood the Project Agreement as having made the RTG Parties “responsible” for such an event. However, the Parties must work together under the Project Agreement and the City always has an obligation under Section 8.1(a)(ii) to cooperate with the RTG Parties in the fulfilment of the purposes and intent of the Project Agreement.

48. Mayor Watson exemplified this flawed approach in cross-examination. He repeatedly refused to acknowledge a distinction between whether, on the one hand, the RTG Parties were “responsible” for the sinkhole, and whether, on the other hand, regardless of whose responsibility it was, the sinkhole was going to result in delays to the completion of the project that would be felt

⁵⁹ Expert Panel on Public-Private Partnerships, Presentation by Dr. Matti Siemiatycki, Transcript Vol. 19, pg. 30, lines 25-28, TRN00000212.

by the public and needed to be managed appropriately.⁶⁰ In other words, the City's approach seemed to be one of unrealistically trying to squeeze from the private sector a system and timeline which was not practical given the circumstances (including the affordability cap and the sinkhole) without any thought or consideration as to whether this approach was ultimately in the best interest of the project, including the actual effects of this approach on the public, their perception of the project, the project schedule, relief events and any disputes related thereto. Put simply, the City's problematic approach had cascading and unproductive effects on the project and compounded the public's frustration.

B. Construction Phase

1. The RTG Parties are experts in designing and constructing major infrastructure projects

49. The RTG Parties are, as noted above, among the largest and most sophisticated infrastructure companies in Canada. For the Ottawa LRT Project, they dedicated enormous resources and brought in industry-leading experts from across the globe to make the Confederation Line one of the safest, most innovative, and technologically advanced light rail systems in the world, deserving of a nation's capital. The RTG Parties brought a wealth of international experience in respect of projects with similar scope and complexity.

50. The RTG Parties and their parent companies were conscientious and adaptable throughout the construction phase of the project. They took a series of actions to ensure that the project was moving forward properly, including the OLRT-C Executive Committee:

⁶⁰ Cross-Examination of Jim Watson, Transcript Vol. 14, pg. 231-234, lines 1-11, TRN00000203.

- (a) Bringing in an EllisDon employee—Matthew Slade—who had worked his entire career in transit and had previously worked for Alstom, as a strategic advisor to assist with preparing a remediation plan;
- (b) Arranging for SNC’s Tunnel Ventilation team to move onto the project, full time, from Vancouver to get the most critical system tested and commissioned;
- (c) Hiring Mark Turner of Sener, a bogie expert, and relocated him from Barcelona to assist with the vehicle issues that were materializing prior to Trial Running; and
- (d) Engaging SNC-Lavalin Group’s Atkins high voltage team to assist with reviewing power issues.

51. These are some of many examples where the RTG Parties recognized challenges on the horizon, identified the resources necessary to address them, and brought those resources aboard to ensure the success of the project.

2. The RTG Parties provided effective systems integration

(a) Challenges with Integration improved under Jacques Bergeron’s leadership

52. The RTG Parties acknowledge that there were challenges with systems integration at the outset of the project. Ensuring that systems were properly integrated (in particular, the Alstom vehicle and the Thales signalling systems) was a complex and important task that the RTG Parties took seriously.

53. In part, the challenges stemmed from the fact that Alstom also has a signalling system and is a competitor to Thales in the signalling market. Early in the project, Alstom and Thales were concerned that trade secrets or proprietary design solutions would be revealed to the other party and as a result, each was reluctant to share information with the other.⁶¹

54. However, this changed with the appointment of Jacques Bergeron as OLRT-C's Director of Integration in January of 2014. While Mr. Bergeron joined the project nine months after construction commenced, it is not unusual for the Director of Integration to be brought onto the project several months after the project begins.⁶² Individuals with this unique skillset and expertise are in high demand. In Mr. Bergeron's view, his start date did not slow down the systems integration process.⁶³

55. When Mr. Bergeron joined the project, he quickly identified that Alstom and Thales did not have "very good communication and teamwork".⁶⁴ Mr. Bergeron made it a priority "to make sure that [Alstom and Thales] work[ed] harmoniously" together.⁶⁵ He "set down some unwritten ground rules and opened the communication" between the two competitors, and worked with Alstom and Thales to discuss problems that they were facing and to find solutions collaboratively.⁶⁶

⁶¹ Examination of Jacques Bergeron, Transcript Vol. 7, pg. 112, lines 2-9, TRN00000191.

⁶² Cross-Examination of Jacques Bergeron, Transcript Vol. 7, pg. 160-161, lines 28-2, TRN00000191.

⁶³ Cross-Examination of Jacques Bergeron, Transcript Vol. 7, pg. 160, lines 21-22, TRN00000191.

⁶⁴ Examination of Jacques Bergeron, Transcript Vol. 7, pg. 111, lines 6-8, TRN00000191.

⁶⁵ Examination of Jacques Bergeron, Transcript Vol. 7, pg. 143, lines 1-3, TRN00000191.

⁶⁶ Examination of Jacques Bergeron, Transcript Vol. 7, pg. 111, lines 8-9, TRN00000191.

56. Mr. Bergeron played an active role in facilitating information sharing between Alstom and Thales.⁶⁷ He was clear in his evidence that when he received information from Alstom or Thales, he shared it with the other party “the minute we had it”.⁶⁸ Given the close working relationship between the parties, Mr. Bergeron’s communications with Alstom and Thales were not always through formal, official correspondence⁶⁹ (and this is expected on such a dynamic project).

57. In Mr. Bergeron’s view, the relations between Thales, Alstom and OLRT-C “improved quite dramatically” during his tenure.⁷⁰

58. His view was shared by both Alstom and Thales. Bertrand Bouteloup, Alstom’s Project Manager, characterized Mr. Bergeron as “really constructive...in a positive way, presenting solutions, finding solution[s] and coordinating”⁷¹ and that Mr. Bergeron “really represent[ed] the type of people who wants to make it happen.”⁷² Mr. Bouteloup explained that Mr. Bergeron assisted Alstom and Thales to work together, and that it was a period that was “relatively collaborative”.⁷³

⁶⁷ Examination of Jacques Bergeron, Transcript Vol. 7, pg. 111, lines 5-11, TRN00000191.

⁶⁸ Examination of Jacques Bergeron, Transcript Vol. 7, pg. 162, lines 26-28, TRN00000191.

⁶⁹ Examination of Jacques Bergeron, Transcript Vol. 7, pg. 162, lines 26-28, TRN00000191.

⁷⁰ Examination of Jacques Bergeron, Transcript Vol. 7, pg. 111, lines 10-11, TRN00000191.

⁷¹ Formal Interview of Bertrand Bouteloup, pg. 33, lines 21-25, TRN00000005.

⁷² Formal Interview of Bertrand Bouteloup, pg. 34, lines 1-4, TRN00000005.

⁷³ Examination of Bertrand Bouteloup, Transcript Vol. 8 (Translated), pg. 28, lines 1-5, TRN00000211.

59. Michael Burns, Thales' Project Manager, described Mr. Bergeron as an "experienced engineer" who "did, to the best of his abilities, facilitate that closure on the ICDs [the interface control documents]".⁷⁴

(b) Steps taken to integrate the systems

60. The RTG Parties undertook the following steps to integrate the systems:

- (a) They undertook a risk assessment early in the Project;⁷⁵
- (b) They prepared a Systems Engineering Plan that was based on internationally recognized systems engineering standards such as ISO/IEC 15288, Systems Engineering – Systems Life Cycle Processes;⁷⁶
- (c) During the design phase, OLRT-C held regular integration meetings to review the Interface Control Documents with Alstom and Thales and facilitated the exchange of engineering documentation; and
- (d) During the installation phase, these meetings with Alstom and Thales increased to take place daily.⁷⁷

(c) The Alstom and Thales systems were fully integrated before Revenue Service Availability

61. Mr. Bergeron retired in August 2018. By this time, the Alstom and Thales systems had been substantially integrated.

⁷⁴ Examination of Michael Burns, Transcript Vol. 6, pg. 94, lines 15-19, TRN00000190.

⁷⁵ Cross-Examination of Jacques Bergeron, Transcript Vol. 7, pg. 161, lines 7-15, TRN00000191.

⁷⁶ Initial Risk Assessment/Planning, pg. 2, IFO0000178; OLRT-C Systems Engineering Management Plan, PAR0001767.

⁷⁷ Examination of Rupert Holloway, Transcript Vol. 5, pg. 116, lines 21-26, TRN00000189.

62. As described by Mr. Burns from Thales, upon Mr. Bergeron's departure, "he had largely resolved the ICDs"⁷⁸, and "achieved... most of what he set out to do".⁷⁹

63. As at Substantial Completion in July 2019, Mr. Slade described that if systems integration wasn't fully complete, "it was in the 90th percentile".⁸⁰

(d) Systems integration was verified through testing and commissioning and any reliability issues did not result from a lack of systems integration

64. The reliability issues experienced in the months following RSA were not caused by issues with systems integration.⁸¹ Mr. Slade's evidence was that, with respect to the major service disruptions on the line, including inductor failures on the roof of the train, issues with dirt and grime, catenary failures, brake issues, cracked wheels, "the root causes have not been in system integration."⁸²

65. When considering the events that affected service in the weeks after RSA, a majority of these challenges resulted from Alstom failures. Mr. Slade described that these issues resulted from reliability issues with respect to the various components of the vehicles.⁸³ Among other things, the vehicle-related issues ranged from the train control and management system, to the HPU (hydraulic power unit) brakes, to the PACIS cab video display. Tom Fodor, a consultant to the

⁷⁸ Examination of Michael Burns, Transcript Vol. 6, pg. 97, line 10, TRN00000190.

⁷⁹ Examination of Michael Burns, Transcript Vol. 6, pg. 97, lines 12-13, TRN00000190.

⁸⁰ Cross-Examination of Matthew Slade, Transcript Vol. 10, pg. 140, lines 8-9, TRN00000199.

⁸¹ Cross-Examination of Matthew Slade, Transcript Vol. 10, pg. 140, lines 13-16, TRN00000199.

⁸² Cross-Examination of Matthew Slade, Transcript Vol. 10, pg. 141, lines 11-13, TRN00000199.

⁸³ Cross-Examination of Matthew Slade, Transcript Vol. 10, pg. 139, lines 3-4, TRN00000199.

City on the Project from Parsons, confirmed that there were reliability issues with the vehicles following RSA.⁸⁴

66. There is no contrary evidence suggesting that any significant systems integration issues persisted at or around the time of Substantial Completion or revenue service.

3. The RTG Parties appropriately managed the Alstom and Thales subcontracts

67. While Alstom attempted to make hay with this topic in their witnesses' evidence, there is no evidence that any misalignment of delivery deadlines in the Alstom and Thales subcontracts had any meaningful consequences for either party's performance of their obligations. The reality is that neither Alstom nor Thales were able to meet the deadlines set in their subcontracts.⁸⁵ When setting these deadlines, OLRT-C's priority was ensuring that both subcontractors would deliver their systems when required for the Project (i.e., by the testing and commissioning phase).

68. The contractual delivery dates were quickly rendered irrelevant by Alstom's delays in producing a reliable prototype train for Thales to use in finalizing the design of its control and signalling system. As Rupert Holloway, OLRT-C's former Project Director, testified, Thales needed Alstom's "golden vehicle" to deliver its deliverable, but Alstom's train design was under continual revision until very late in the project.⁸⁶

69. By contrast, there is no evidence that Thales impeded Alstom's delivery of reliable trains.

⁸⁴ See e.g. Cross-Examination of Tom Fodor (Parsons Panel), Transcript Vol. 8, pg. 174-175, lines 20-28, 1-13, TRN00000197.

⁸⁵ Examination of Michael Burns, Transcript Vol. 6, pg. 102, lines 16-18 and pg. 103, lines 24-28, TRN00000190.

⁸⁶ Cross-Examination of Rupert Holloway, Transcript Vol. 5, pg. 175-176, lines 24-28, TRN00000189.

4. The track was built in-line with the wheel/rail interface specification

70. Alstom's LRV1119 Derailment Investigation Report dated May 10, 2022, contains the statement that "the as-built track was not in line with the design as stated in the wheel/rail interface specification agreed by OLRTC."⁸⁷

71. The report does not elaborate upon how, exactly, the as-built track is alleged to depart from the design as stated in the wheel-rail interface. In his testimony, Lowell Goudge, Alstom's Senior Train System Engineer, who had been involved in the preparation of the report, suggested that there were two possibilities: (a) the profile of the rail was flatter than expected, and (b) the gauge of the track was narrower than expected.⁸⁸

72. To the extent that either of these things were true at the time that LRV1119 derailed, they were both Alstom's responsibility to maintain.⁸⁹ However, despite Mr. Goudge's statements, for which he provided no further explanation during his testimony, there is significant evidence to the contrary, namely that both at the time of Revenue Service, and at the time LRV1119 derailed, the rail profile and the track gauge were within the tolerances specified in Alstom's wheel/rail interface document. In particular:

- (a) The Technical Compliance Report,⁹⁰ authorized by Derek Wynne of SEMP, certifies that, as of June 27, 2019 (i.e., about two months before Revenue Service Availability ("RSA")), engineers licensed in Ontario had certified under their

⁸⁷ Exhibit 91, LRV1119 Derailment Investigation Report, May 10, 2022, pg. 6, COM0010118.

⁸⁸ Examination of Lowell Goudge, Hearing Transcript Vol. 7, pg. 29-36, lines 11-2, TRN00000191.

⁸⁹ Cross-Examination of Yang Liu, Hearing Transcript Vol. 10, pg. 206-207, lines 16-1, TRN00000199.

⁹⁰ Exhibit 220, Technical Compliance Report, June 27, 2016, ALS0012477.

professional seals that (1) the track had been designed according to specification, and (2) the track had been constructed according to those designs.⁹¹

- (b) Mr. Slade recalled that the track gauge had indeed been narrow at one point in time but was corrected prior to RSA. The track gauge can change over time and can or must be corrected when it changes.⁹²
- (c) Alstom's own rail grinding report confirms that the track gauge was within tolerances in March 2021.⁹³ Alstom is aware of the need to maintain the rail profile through regular grinding and had done a grinding exercise in October or November of 2020, as well as a grind of the full line only a few months before the first derailment, in June or July 2021.⁹⁴
- (d) Alstom is responsible for maintenance of the track.⁹⁵ If the profile and gauge were within tolerance at RSA as certified by Mr. Wynne but are not in tolerance now, this is a maintenance failure for which Alstom is responsible.

73. The Alstom LRV1119 Derailment Investigation Report also contains the statement that “the actual design of the track generates excessive fretting under the bearing of the axle”.⁹⁶ This statement is, again, unsupported by further detail or particulars in the report as to how the track design, as opposed to the wheel-rail interface, generates excessive fretting.

⁹¹ Cross-Examination of Derek Wynne, Transcript Vol. 14, pg. 84-86, lines 12-23, TRN00000203.

⁹² Cross-Examination of Matthew Slade, Transcript Vol. 10, pg. 143-144, lines 16-23, TRN00000199.

⁹³ Exhibit 272, Alstom Pre-Grind Inspection Optical Measurements, March 18, 2021, pg. 12 (pg. 15 of 23 of the PDF), ALS0015072.

⁹⁴ Examination of Richard France, Transcript Vol. 17, pg. 30, lines 13-28, TRN00000207.

⁹⁵ Cross-Examination of Yang Liu, Transcript Vol. 10, pg. 206-207, lines 16-19, TRN00000199.

⁹⁶ Exhibit 91, LRV1119 Derailment Investigation Report, May 10, 2022, pg. 6, COM0010118.

74. As Mr. Wynne explained, the available data supports only that there is a problem with the wheel/rail interface, something that was Alstom's responsibility to design. Mr. Wynne was not surprised that Alstom would phrase that problem as one relating to the track, as opposed to the wheels or to the wheel/rail interface:

This is written with a particular bent towards the track wasn't suitable for my wheels. I could have written this report if I was OLRTC and said, 'Sorry, your wheels aren't suitable for my track.'⁹⁷

75. Alstom's rail grinding subcontractor's report, as well as an independent study by Network Rail Consulting, confirm that the current wheel/rail interface is not performing in an optimized way, which is contributing to excessive corrugation of the track.⁹⁸ This excessive corrugation is the very issue that the Alstom LRV1119 Derailment Investigation Report identifies as likely contributing to increased loads on the bearing assembly, but which that same report then unjustifiably claims is the result of "the configuration of the track", without support or explanation.

76. As such, two third-party reports looking at the same issue identified the wheel/rail *interface* as causing excessive corrugation of the track. The conclusion in these two reports should be preferred over Alstom's self-serving suggestion, delivered on the eve of this Commission's hearings, that, despite ample evidence to the contrary, either the track design or its construction are to blame for the fact that Alstom's wheels are generating excessive corrugation when they roll on the track.

⁹⁷ Cross-Examination of Derek Wynne, Transcript Vol. 14, pg. 89-90, lines 15-13, TRN00000203.

⁹⁸ Exhibit 272, Alstom Pre-Grind Inspection Optical Measurements, March 18, 2021, pg. 16 (pg. 19 of 23 of the PDF) ALS0015072; Cross-examination of Mario Guerra, Transcript Vol. 18, pg. 140, lines 22-28, TRN00000207.

5. The Maintenance and Storage Facility (the “MSF”) was in a suitable condition for the manufacturing and assembly of the LRVs

77. The RTG Parties took all reasonable steps to ensure that the MSF was in a suitable condition for various activities including manufacturing, assembly, and maintenance. Manuel Rivaya, a member of the OLRT-C Executive Committee, gave evidence that the MSF was suitable for manufacturing of the LRVs.⁹⁹ Following assembly of the LRVs, the RTG Parties made further modifications to the MSF to ensure that it was operational for maintenance.¹⁰⁰

78. The RTG Parties followed Alstom’s lead in deciding to manufacture and assemble LRVs in the MSF. Alstom told the RTG Parties that they had done this on other projects, so the RTG Parties trusted that Alstom could handle any challenges that arose based on their experience.¹⁰¹

79. Alstom’s delay also affected how the MSF was being used. The delay in delivering vehicles meant that they performed serial and validation testing in parallel. Because of Alstom’s choice, multiple rounds of retrofits were required which placed space limitations on the assembly of other LRVs in the MSF. Many of the challenges experienced in the MSF were the result of the large number of vehicle retrofits required post-RSA. The RTG Parties did not anticipate having to use the MSF for this number of retrofits while also trying to achieve daily service levels, nor would any reasonable party in their situation.¹⁰²

⁹⁹ Formal Interview of Manuel Rivaya, pg. 93, lines 8-18, TRN0000054.

¹⁰⁰ Examination of Riccardo Cosentino, Transcript Vol. 1, pg. 119, lines 14-19, TRN00000178.

¹⁰¹ Interview of Manuel Rivaya, pg. 88, lines 8-14, TRN0000054.

¹⁰² Formal Interview of Matthew Slade, pg. 150, lines 3-15, TRN00000103.

6. Following the sinkhole, the City chose to take an inappropriately rigid and adversarial approach to the project

80. On June 8, 2016, a massive sinkhole opened on Rideau Street near Sussex Street (the “sinkhole”). The watermain under Rideau Street broke, sending thousands of gallons of water and hundreds of tons of liquefied soil into the underground tunnel causing critical damage and burying the road header being used for excavation.¹⁰³ The sinkhole swallowed three road lanes at a major intersection in Ottawa and a parked vehicle, forced the evacuation of the Rideau Centre and nearby businesses, and caused several streets to close. The sinkhole disrupted power, water, and sanitary services throughout the downtown core of Ottawa. Fortunately, no one was injured, in no small part because of the efforts of the RTG Parties, including their swift response to the sinkhole.

81. The RTG Parties took immediate steps to mitigate the effects of the sinkhole and return safe access to the area.¹⁰⁴ At this time, the City worked collaboratively and cooperatively with the RTG Parties to address the impacts of the sinkhole.¹⁰⁵ The RTG Parties’ priorities included stabilizing the soil and the tunnel,¹⁰⁶ pumping out the water in the tunnel, restoring infrastructure, and repairing Rideau Street. There was a huge effort made by all stakeholders to make Rideau Street safe again for the public.¹⁰⁷ By August 5, 2016, Rideau Street was stable and the RTG Parties resumed tunneling and implemented changes to the project’s tunnel construction program.¹⁰⁸

¹⁰³ Cross-Examination of Jim Watson, Transcript Vol. 14, pg. 224-226, lines 3-11, TRN00000203.

¹⁰⁴ Examination of Antonio Estrada, Transcript Vol. 5, pg. 14, lines 13-19, TRN00000189.

¹⁰⁵ Cross-Examination of Marian Simulik, Transcript Vol. 2, pg. 157-158, lines 26-14, TRN00000184; Examination of Antonio Estrada, Transcript Vol. 5, pg. 15, lines 7-13, TRN00000189.

¹⁰⁶ Cross-Examination of Antonio Estrada, Transcript Vol. 5, pg. 53, lines 11-16, TRN00000189.

¹⁰⁷ Cross-Examination of Jim Watson, Transcript Vol. 14, pg. 234, lines 16-25, TRN00000203.

¹⁰⁸ Exhibit 76, Independent Certifier Determination of Dispute Between the City of Ottawa and Rideau Transit Group General Partnership, pg. 15, COW0317235.

82. While it is beyond the mandate of the Commission to determine liability for the sinkhole, it is important to note that, despite the Mayor's superficial and inaccurate evidence, the causes of the sinkhole are disputed between the City and the RTG Parties. The RTG Parties have not admitted liability for the sinkhole.¹⁰⁹ The RTG Parties have a credible engineering report stating that faulty watermain infrastructure in the soil caused the sinkhole,¹¹⁰ which, under the terms of the Project Agreement, is a risk allocated to the City. In any event, both the City and the RTG Parties commenced claims against their common insurer under their "no fault" policy that, at least in the case of the RTG Parties, resolved many, but not all, of the financial consequences of the sinkhole.¹¹¹

83. While no one will ever know the cause of the sinkhole (now that the evidence is buried under thousands of tons of concrete), it is indisputable that the sinkhole was a major and unforeseen event that was highly disruptive to the construction schedule and had lasting consequences on the project's construction.¹¹² Although the RTG Parties initially believed they could recover the lost time through changes to the sequencing of work,¹¹³ this proved not to be the case.¹¹⁴ All parties, including the City, agree that the sinkhole caused at least nine months of delay to the construction schedule. The RTG Parties did not complete tunnel excavation until February 2017, work which had a completion date of July 2, 2016 pursuant to the Project Agreement.

¹⁰⁹ Cross-Examination of Nicolas Truchon, Transcript Vol. 18, pg. 237-238, lines 23-2, TRN00000208.

¹¹⁰ Exhibit 76, Independent Certifier Determination of Dispute Between the City of Ottawa and Rideau Transit Group General Partnership, pg. 8, COW0317235.

¹¹¹ Cross-Examination of Nicolas Truchon, Transcript Vol. 18, pg. 236, lines 7-15, TRN00000208; Cross-Examination of Nicolas Truchon, Transcript Vol. 18, pg. 235, lines 10-19, TRN00000208.

¹¹² Formal Interview of Matthew Slade, pg. 51, lines 1-10, TRN00000103; Formal Interview of Peter Lauch, pg. 52, lines 10-17, TRN00000034.

¹¹³ Cross-Examination of Manuel Rivaya, Transcript Vol. 4, pg. 166, lines 18-24, TRN00000186.

¹¹⁴ Cross-Examination of Steve Kanellakos, Transcript Vol. 15, pg. 74, lines 22-26, TRN00000204.

84. The RTG Parties' expectation was that, when extenuating circumstances occur, both parties would attempt to solve problems in a collaborative way.¹¹⁵ As the initial response to the sinkhole had been a collaborative one, the RTG Parties hoped that the City would see reason and approach the impacts of the sinkhole in a practical and realistic fashion. This hope was misplaced.

85. Several witnesses, including senior City bureaucrats, agreed that the sinkhole prompted a change in the relationship between the City and the RTG Parties for the worse.¹¹⁶ The City became more rigid¹¹⁷ in its approach to contract administration and denied the RTG Parties schedule relief.¹¹⁸ As a result, the RTG Parties felt compelled in formal correspondence to protect their legal position that the sinkhole and resulting delays were not their responsibility. Facing a client who had become adversarial, rather than acting as a partner, the RTG Parties were pushed into the position of responding in a way that would protect their interests.

86. The City's attitude following the sinkhole seemed to be that if City staff were rigid enough, and elected officials made sufficient public pronouncements about their rigid approach, the work could be achieved more quickly. This unrealistic approach had cascading and unproductive effects. Not only did it add to the understandable public frustration surrounding the delays in achieving revenue service—frustration that the City could have gone some way to addressing had it communicated more transparently and realistically with the public—it meant that the planning and

¹¹⁵ Examination of Antonio Estrada, Transcript Vol. 5, pg. 19, lines 4-8, TRN00000189.

¹¹⁶ Formal Interview of Steve Kanellakos, pg. 20, lines 11-15 and pg. 21, lines 4-7, TRN00000031; Examination of Antonio Estrada, Transcript Vol. 5, pg. 17, lines 1-5, TRN00000189; Examination of Peter Lauch, Transcript Vol. 13, pg. 4, lines 15-20, TRN00000202.

¹¹⁷ The City has still not paid OLRT-C for variations and claims stemming from events from many years ago, which further illustrates the rigid and intransigent approach of the City.

¹¹⁸ Examination of Antonio Estrada, Transcript Vol. 5, pg. 45, lines 7-11, TRN00000189; Cross-Examination of John Manconi, Transcript Vol. 12, pg. 172, lines 16-27, TRN00000201.

scheduling of the project had to be entirely reworked (one example being the testing and trial running of the system which had to be modified due to the resequencing of work).¹¹⁹

87. The sinkhole was not the only cause of delay on the project.¹²⁰ The City's approach to contract administration exacerbated the issues resulting from delays and contributed to the pressure to make certain decisions on the project and shift plans that had been in place for years.

88. Regardless of cause and responsibility, it would have been better for the project and the relationship between the City and the RTG Parties had the City acknowledged the massive and unforeseen impact of such a substantial event and worked cooperatively with the RTG Parties, as the Project Agreement requires, to find solutions and educate the public instead of simply turning to a strict interpretation of the contract every time an issue arose thereafter.¹²¹ When something as unforeseeable and material as the sinkhole occurs on a major construction project, all parties (including the contracting authority) should put self-interest aside and work cooperatively to achieve the best project outcome. As Mr. Cosentino described, the City was not able to transfer the overall risk that a major event like the sinkhole would delay the project which would impact the ultimate objective of the project: moving Ottawa riders.¹²² The City should have recognized this and worked as a true partner with the RTG Parties.

¹¹⁹ Examination of Rupert Holloway, Transcript Vol. 5, pg. 93-94, lines 5-1, TRN00000189; Examination of Rupert Holloway, Transcript Vol. 5, pg. 94-95, lines 24-28, TRN00000189; Formal Interview of Steve Cripps, pg. 87, lines 20-23, TRN00000007.

¹²⁰ Exhibit 76, Independent Certifier Determination of Dispute Between the City of Ottawa and Rideau Transit Group General Partnership, pg. 16, COW0317235.

¹²¹ Cross-Examination of Antonio Estrada, Transcript Vol. 5, pg. 86, lines 15-19, TRN00000189.

¹²² Formal Interview of Riccardo Cosentino, pg. 67, lines 16-20, TRN00000193.

7. The RTG Parties did not provide unrealistic schedules and notices of completion to the City

89. As described above, the sinkhole disrupted the entire project schedule, causing a delay of at least nine months. Despite this, the City denied the RTG Parties' requests for schedule relief. As a result, the RTG Parties were left with no choice but to accelerate the schedule and attempt to recover the lost time caused by this unforeseen event.

90. The Project Agreement required the RTG Parties to achieve Substantial Completion by a specific deadline, and while the RTG Parties remained hopeful that the City would reconsider its position on RTG's request for schedule relief, the RTG Parties had little choice, given the City's inflexible stance, but to try to meet the original schedule and communicate this to the City lest they be in breach of the Project Agreement. Moreover, the RTG Parties paid liquidated damages as contemplated in the contract as a consequence of not achieving the original and subsequently missed completion dates.

91. As Antonio Estrada, RTG's CEO at the time, explained, "the City didn't want to hear about delays. The City wanted us to recover, and at the end, we agreed. OLRT-C agreed to try to recover and produce a recovery plan that was, in my opinion, very aggressive."¹²³ OLRT-C understood that the accelerated schedule was very ambitious and would be a challenge to meet for all parties involved but it believed that the deadlines were achievable.¹²⁴ The City could have used the variation process in the Project Agreement to come up with a revised schedule. Instead, the City's demand of the RTG Parties was simply to figure out a way to finish the project on time.

¹²³ Examination of Antonio Estrada, Transcript Vol. 5, pg. 28-29, lines 27-5, TRN00000189.

¹²⁴ Cross-Examination of Antonio Estrada, Transcript Vol. 5, pg. 85, lines 1-3, TRN00000189.

92. OLRT-C prepared and implemented a rigorous work plan in an effort to achieve the accelerated schedule, which included measures such as double shifts, working weekends, and increasing resources.¹²⁵

93. The City cannot have had any illusions about the fact that asking the RTG Parties to produce a new schedule was “riskier” than the original schedule, in the sense that it had a lower likelihood of being met than the pre-sinkhole schedule.

94. Yet, the City does not appear to have done anything to account for or to mitigate this tangible increased risk of delay, inherent in the fact that no project schedule could ever be put forward with 100% certainty, and therefore every schedule—and especially an aggressive recovery schedule—could possibly need to be extended further. The City’s analysis appears to have stopped at the allocation of responsibility under the Project Agreement. Its decision-making also appears not to have considered who would be accountable for the Confederation Line being completed later than the parties hoped it would be, and the City had repeatedly promised the public it would be. As Mr. Cosentino described, the City carried the overall risk that the riders of Ottawa would be delayed in accessing the Confederation Line.¹²⁶ If the City wanted to achieve what was best for the project, to achieve its ultimate goal, it was in its best interest to have adopted a more collaborative approach.

95. The RTG Parties were alert to the impact of the accelerated schedule and sought to address potential implications to reliability by repeatedly requesting that the City consider a soft start. Mr. Slade gave evidence that once the City publicly announced that the RTG Parties had met

¹²⁵ Cross-Examination of Antonio Estrada, Transcript Vol. 5, pg. 85, lines 6-7, TRN00000189.

¹²⁶ Formal interview of Riccardo Cosentino, pg. 67, lines 16-20, TRN00000173.

Substantial Completion and that trial running was starting, it was full steam ahead and “the City was not minded to pause or hold or do anything else”.¹²⁷

8. The City’s decision to buy out the private debt was unprecedented and harmful to the project

(a) *The debt swap removed the independent oversight that third-party lenders provide*

96. Three of the major stakeholders in a typical P3 are the owner, project company, and third-party lenders (including both long-term and short-term lenders). Each of these stakeholders have different interests at stake and each plays an important and unique role on the project.

97. The third-party lenders’ primary concern is the Project Co’s (in this case, RTG’s) ability to repay the debt. Mr. Pattison, who led IO’s team on the project, gave evidence that the third-party lenders provide due diligence on a project because they have capital at risk.¹²⁸ He said that the third-party lenders can play a challenge function for both the owner and the Project Co because their consent is needed to vary the Project Agreement.¹²⁹ Mr. Traianopoulos described third-party lenders as having a potential moderating influence that may operate to the benefit of the Project.¹³⁰ Mr. Traianopoulos said that the City’s decision to take out the long term lenders “removed a significant stakeholder” which “change[d] some of the dynamics” of the P3 relationship.¹³¹ Dr. Siemiatycki said that the lenders “play a very important role as trying to provide a counterweight

¹²⁷ Formal Interview of Matthew Slade, pg. 63-64, lines 19-11, TRN00000103.

¹²⁸ Examination of Rob Pattison, Transcript Vol. 2, pg. 14, lines 24-26, TRN00000184.

¹²⁹ Examination of Rob Pattison, Transcript Vol. 2, pg. 76, lines 20-23, TRN00000184.

¹³⁰ Examination of John Traianopoulos, Transcript Vol. 3, pg. 50, lines 15-20, TRN00000185.

¹³¹ Examination of John Traianopoulos, Transcript Vol. 3, pg. 50, lines 24-26, TRN00000185.

to some of the optimism”.¹³² Dr. Siemiatycki also described the finance component of P3s as the “glue that holds the deal together.”¹³³

98. The City’s decision to buy out private debt removed this moderating influence. The City taking on the long-term debt was not expressly contemplated in the Project Agreement and Mr. Traianopoulos said that in his experience, he had never seen a debt swap in a P3.¹³⁴ By removing the long-term lenders, Mr. Traianopoulos noted that the City “lost... the independent long-term oversight”.¹³⁵

(b) This decision gave the City leverage over the RTG Parties

99. The role of owner and that of long-term lender are distinct, and each have separate rights in view of those roles. The City’s decision to buy out the private debt in this unexpected and unilateral way meant that the City gained access to information contained in financing documents (such as technical advisor reports) that RTG had not been previously required to provide to the City.¹³⁶ These reports contained information about RTG’s financial position that would not have been shared with the City in its capacity as owner.¹³⁷

¹³² Expert Panel on Public-Private Partnerships, Presentation by Dr. Matti Siemiatycki, Transcript Vol. 19, pg. 25, lines 11-12, TRN00000212.

¹³³ Expert Panel on Public-Private Partnerships, Presentation by Dr. Matti Siemiatycki, Transcript Vol. 19, pg. 25, lines 2-4, TRN00000212.

¹³⁴ Examination of John Traianopoulos, Transcript Vol. 3, pg. 48, lines 2-9, TRN00000185.

¹³⁵ Examination of John Traianopoulos, Transcript Vol. 3, pg. 50, lines 12-13, TRN00000185.

¹³⁶ Formal Interview of Brian Guest, pg. 48, lines 5-22, TRN00000174.

¹³⁷ Examination of Marian Simulik, Transcript Vol. 2, pg. 142-143, lines 16-28, 7-16, TRN00000184.

100. The City also obtained additional rights that it did not previously have in its role as owner such as access to the security and earlier access to default options.¹³⁸ Brian Guest, a close advisor to the City, described the lenders powers as “very potent”.¹³⁹

101. Mr. Traianopoulos, Steve Kanellakos, the City Manager, and Ms. Simulik, all agreed that by stepping into the shoes of the long-term lenders, the City gained leverage over RTG.¹⁴⁰ Certainly, a PowerPoint presentation prepared for a briefing to the City General Manager and staff on the debt-swap indicates the City did so intentionally, with that presentation describing that “having taken the long term lender’s position, the City will gain access to all Lenders Technical Advisor (“LTA”) reports which will help the City understand the nature and extent of the delay and would be valuable in any negotiations with RTG.”¹⁴¹ The City’s counsel suggested to certain witnesses in cross-examination that the City had not gained leverage over RTG because the City had not exercised any of its newly-acquired powers. This suggestion misunderstands the concept of leverage—it is the threat to inflict a consequence on someone that gives leverage, not the infliction of the consequence itself.

102. Nonetheless, the evidence before the Commission indicates that the City’s maneuvers were problematic. Mr. Traianopoulos also gave evidence that the City’s decision to assume the long-term debt decreased the predictability as to how the project would run from the perspective of the

¹³⁸ Formal Interview of Brian Guest, pg. 48, lines 5-22, TRN00000174.

¹³⁹ Formal Interview of Brian Guest, pg. 49, line 3, TRN00000174.

¹⁴⁰ Examination of John Traianopoulos, Transcript Vol. 3, pg. 51, lines 7-10, TRN00000185; Examination of Steve Kanellakos, Transcript Vol. 15, pg. 8, lines 20-24, TRN00000204; Examination of Marian Simulik, Transcript Vol. 2, pg. 145, lines 12-17, TRN00000184.

¹⁴¹ Exhibit 29, Stage 2 Light Rail Transit, RTG Long-Term Debt Release Overview and Approach, Briefing to General Manager and Staff, July 26, 2017, pg. 12, COW0525727; Examination of Marian Simulik, Transcript Vol. 2, p. 143-144, lines 23-7, TRN00000184.

RTG Parties¹⁴² and noted that there had been commentary in the P3 market that the City's decision to take on the debt is "not in the spirit of the model".¹⁴³

(c) The City did not keep its role as owner and lender separate

103. Mr. Estrada described the importance of the City keeping its role as owner and lender separate: the City's interest as lender is RTG's ability to pay back the debt, which is separate from its interests as owner. Mr. Estrada cautioned that you "cannot mix this with your interest...as the owner".¹⁴⁴

104. The City agreed that it was beneficial to keep its roles as owner and lender separate,¹⁴⁵ however, the evidence showed that it consistently conflated the roles.

105. In correspondence to the RTG Parties, the City expressly blended the two roles. For example, in a letter to Mr. Estrada on November 27, 2017, Mr. Kanellakos wrote "[t]he City, in both its capacity as counterparty to RTG under the Project Agreement and long-term lender under the Credit Facility, is extremely concerned about the current state of progress of the project".¹⁴⁶

106. The letter also notes that "in the City's capacity as long term lender under the Credit Facility, the City expects and will require the continued interest and principal payments from RTG under the Credit Facility irrespective of any delays [...]".¹⁴⁷

¹⁴² Examination of John Traianopoulos, Transcript Vol. 3, pg. 51, lines 25-28, TRN00000185.

¹⁴³ Examination of John Traianopoulos, Transcript Vol. 3, pg. 53, lines 12-15, TRN00000185.

¹⁴⁴ Examination of Antonio Estrada, Transcript Vol. 5, pg. 41, lines 1-6, TRN00000189.

¹⁴⁵ Examination of Marian Simulik, Transcript Vol. 2, pg. 131, lines 14-16, TRN00000184; Examination of Remo Bucci, Transcript Vol. 6, p. 42, lines 7-13, TRN00000190.

¹⁴⁶ Exhibit 66, Letter from S. Kanellakos to A. Estrada, November 27, 2017, COW0523414.

¹⁴⁷ Exhibit 66, Letter from S. Kanellakos to A. Estrada, November 27, 2017, COW0523414.

107. Mr. Kanellakos agreed that the City referenced its role as long-term lender in the letter “to put additional pressure on RTG and to remind RTG of the leverage”¹⁴⁸ this gave the City. He was making it clear to RTG that the City as lender would not grant relief in order “to put pressure on RTG to perform under the Project Agreement and to use the status as lender to do that”.¹⁴⁹

108. In a letter dated November 30, 2017,¹⁵⁰ Mr. Estrada responded to the City noting that by writing in its capacities as owner under the Project Agreement and lender under the Credit Agreement, the City had “conflated its various and differing rights and obligations under these two agreements”. Mr. Estrada continued that “going forward, RTG requests that all future correspondence from the long-term lender not be combined with correspondence from the authority” to “avoid any appearance that either the long term lender or the authority is acting outside of the scope of their respective agreements in not fulfilling the terms and conditions of those respective agreements in good faith.”

109. Further, representatives from the City had information from both the Executive Steering Committee (“ESC”) (which was given the delegated authority by council to make decisions in respect of the OLRT Project) and the Credit Committee (which was created to act as the governance structure within the City to oversee the role of lender) showing a further blending of the roles. Ms. Simulik was a member of the ESC and was the point person for both lender-related information and project-related financial information. The Credit Committee also reported to her, and she was ultimately responsible for making recommendations to National Bank (the lenders’

¹⁴⁸ Examination of Steve Kanellakos, Transcript Vol. 15, pg. 13-14, lines 27-3, TRN00000204.

¹⁴⁹ Examination of Steve Kanellakos, Transcript Vol. 15, pg. 15, lines 2-5, TRN00000204.

¹⁵⁰ Exhibit 67, Letter from A. Estrada to S. Kanellakos, November 30, 2017, RTG00001895.

agent) with respect to requests from the Credit Committee.¹⁵¹ Remo Bucci was also a member of the Credit Committee and attended ESC meetings.¹⁵²

9. Alstom was delayed which further exacerbated the delays caused by the sinkhole

110. Alstom was late in delivering its vehicles and behind on the original schedule. These delays were caused by the City's delayed approval of the vehicle design book and production delays, preceding any delays in testing and commissioning the vehicles.¹⁵³ Some of these production delays were due to supply chain issues; some were also due to design issues.¹⁵⁴

111. For example, the bogies that Alstom procured, from a new supplier with which it had not previously worked, proved to be defective and needed to be redesigned prior to RSA, and have subsequently been the subject of various retrofits and redesigns.¹⁵⁵ As another example, there were also issues with the brake calipers and the Hydraulic Power Unit, both of which required retrofits to the entire fleet.¹⁵⁶

112. Furthermore, there were issues with the design book. Although the City was supposed to approve the vehicle design book in August 2013, the City failed to do so until August 2014. This ultimately delayed prototype manufacturing which in turn delayed validation testing.¹⁵⁷

¹⁵¹ Examination of Remo Bucci, Transcript Vol. 6, pg. 43-44, lines 28-1, TRN00000190.

¹⁵² Examination of Remo Bucci, Transcript Vol. 6, pg. 45-46, lines 22-2, TRN00000190.

¹⁵³ Cross-Examination of Lowell Goudge, Transcript Vol. 7, pg. 75, lines 14-23, TRN00000191.

¹⁵⁴ Cross-Examination of Bertrand Bouteloup, Transcript Vol. 8, pg. 75, lines 8-13, TRN00000197.

¹⁵⁵ Examination of Lowell Goudge, Transcript Vol. 7, pg. 8, lines 22-26, pg. 9, lines 6-9 and pg. 48, lines 7-11, TRN00000191.

¹⁵⁶ Examination of Jacques Bergeron, Transcript Vol. 7, pg. 124, lines 20-22, TRN00000191.

¹⁵⁷ Examination of Antonio Estrada, Transcript Vol. 5, pg. 71-72, lines 21-17, TRN00000189.

113. Alstom was never able to recover from these initial delays. To the contrary, these delays appear to have cascaded, causing further problems that in turn led to continuing and propagating delay through Alstom's execution of its part of the project. For example:

- (a) Because it was delayed in producing vehicles, Alstom had not completed validation testing before it began producing multiple vehicles. This in turn meant that it was completing both validation and serial testing concurrently, contrary to best practices.
- (b) As it turned out, validation testing revealed multiple problems that needed to be addressed, partly because the Citadis Spirit was a "prototype" vehicle and partly because it was being manufactured with parts from a newly sourced supply chain. This, however, meant that already-produced vehicles required retrofits.
- (c) Not only are retrofits time-consuming to apply to vehicles, but they then require regression testing on the vehicle to which they are applied, adding more time to the process.
- (d) Yang Liu, Alstom's Manager of Testing and Commissioning found the number and the significant nature of the changes being made to vehicles ostensibly in the serial-testing phase "unusual".¹⁵⁸
- (e) The amount of work involved in retrofitting and regression-testing vehicles does not appear to have been anticipated by Alstom, who were not adequately staffed.

¹⁵⁸ Cross-Examination of Yang Liu, Transcript Vol. 10, pg. 208, lines 16-18, TRN00000199.

Staff had to be doubled, which, given the specialized and technical nature of the work, is a process that requires recruitment, training, and takes time.

114. Alstom was either unable or unwilling to devote the resources necessary to the project to overcome the delays that plagued its vehicle delivery from the start.

C. Testing Phase

1. Contractual framework regarding trial running

115. Conducting and passing Trial Running is part of the RTG Parties' overall commissioning obligations prior to the system being ready for Revenue Service under the Project Agreement: "The scope of the testing and commissioning plan/strategy will include Trial Running of the System in segments and as a fully integrated System to the extent necessary to demonstrate the functional capability and safety of the System."¹⁵⁹ In particular, Schedule 15-1 of the Project Agreement defines Trial Running as "a twelve (12) consecutive day period that may commence upon the successful completion of testing and commissioning. Upon successful completion of trial running, the integrated system will be ready for revenue service."¹⁶⁰

116. Under the heading "Integrated Revenue Service Availability Testing" in Schedule 14 of the Project Agreement, the key aspects of Trial Running are set out as follows:

- (a) Project Co shall conduct Trial Running when the integrated system has been tested and is essentially ready for Revenue Service Commencement. Trial Running will be the final step in confirming readiness for Revenue Service Commencement;

¹⁵⁹ Exhibit 247, Project Agreement Ottawa Light Rail Transit Project, Schedule 14 (Commissioning), para. 1.3(a), COW0000294.

¹⁶⁰ Exhibit 280, Project Agreement Ottawa Light Rail Transit Project, Schedule 15-1 (Technical Definitions and Reference Documents), pg. 20, COM0000295.

- (b) Trial Running shall be reviewed on a day-by-day basis by the Commissioning Team;
- (c) The tests will include a variety of failure management scenarios that could reasonably be expected to occur in regular Revenue Service. The City will have the opportunity to review and approve the failure management scenarios that will be tested during Trial Running; and
- (d) Validation of the Trial Running acceptance shall be performed by the Independent Certifier.

2. Trial running was robust and demonstrated that the system was safe and reliable

117. Together with the City, the RTG Parties developed and used a robust Trial Running model. The results from Trial Running demonstrated that the Confederation Line was safe and reliable as further described below.

(a) The testing criteria were thorough, and all tests were passed

118. The tests used during Trial Running were thorough and based on industry leading standards.¹⁶¹ Importantly, all the key participants—the City, the RTG Parties, and Alstom—agree that Trial Running in this case was thorough, and that it demonstrated that the system was reliable.¹⁶²

119. Trial Running verified that the vehicles (and the system) were safe. In fact, before Trial Running commenced, Alstom issued “safety certificates” attesting to the safety of the vehicles.

¹⁶¹ Cross-Examination of Thomas Prendergast, Transcript Vol. 12, pg. 44-45, lines 26-4, TRN00000201; Formal Interview of Matthew Slade, pg. 131, lines 7-19, TRN00000103.

¹⁶² Examination of Larry Gaul, Transcript Vol. 16, pg. 49, lines 15-19, TRN00000206.

During his evidence to the Commission, Mr. Goudge explained as follows: “[t]he trains are safe to ride. I would not have signed the safety certificate if I did not believe the trains were safe to ride...I reviewed and approved all the safety documents, all the test procedures, all the test reports and was satisfied...”.¹⁶³

120. Trial Running also assessed the reliability of the system. As described more fully below, the key participants—the City, the City’s independent advisors STV, the RTG Parties, and the Independent Certifier—were all satisfied that the necessary reliability of the system had been demonstrated through the trial running process, even using the revised criteria agreed-to by the City and RTG part-way through Trial Running.

(b) The City, the RTG Parties and the Independent Certifier all agreed that all tests were passed

121. Trial Running was a collaborative process. It was conducted from July 29, 2019 to August 22, 2019. The results of the previous day of Trial Running were reviewed each day by the Trial Running Review Team (“TRRT”), which consisted of Troy Charter (OC Transpo), Larry Gaul (STV), Richard Holder (City), Claude Jacob (RTM), Kyle Campbell (Independent Certifier), Peter Lauch (RTG), Matthew Slade (OLRT-C), and William Allman (OLRT-C).¹⁶⁴ Based on the review of data and discussions of the TRRT during its daily review meeting, the Independent Certifier scored each day of Trial Running as a “Pass”, “Repeat”, or “Restart”, in accordance with the Trial Running Test Procedure.

¹⁶³ Examination of Lowell Goudge, Transcript Vol. 7, pg. 57, lines 9-16, TRN00000191.

¹⁶⁴ Exhibit 123, Validation of Trial Running Acceptance, August 23, 2019, COW0270758.

122. On August 23, 2019, based on the scorecards completed by the TRRT for each day of Trial Running and in accordance with its obligations under the Project Agreement, the Independent Certifier validated Trial Running Acceptance.

123. Although all parties acknowledged that they were under pressure to reach Revenue Service Availability without another delay to the RSA date, all of them were clear that they did not feel any pressure, from anyone at any point, to “pass” a day that should have been a “fail”.¹⁶⁵

(c) The City and the RTG Parties agreed to revise the AKVR threshold

124. The Commission heard extensive evidence about changes to one of the specific Trial Running criteria—the Aggregate Vehicle Kilometers Availability Ratio (“AVKR”) threshold—part-way through Trial Running. There are two key points to keep in mind about these changes:

- (a) Both versions of the threshold were agreed by all parties—including the City’s advisors, STV—to be so high that Ottawa commuters would not be affected by the difference in meeting one versus the other; and
- (b) It was the City that proposed changing the criteria, not the RTG Parties—however, regardless of whose idea it was, both the City and RTG discussed it carefully, including with the benefit of STV’s advice, and agreed that it was an appropriate change to make in the circumstances.

125. Trial Running started using the procedure finalized on July 31, 2019, which required that the system achieve an average AVKR of 98% or higher over 12 days. The TRRT agreed to modify

¹⁶⁵ See e.g. Examination of Michael Morgan, Transcript Vol. 11, pg. 40-41, lines 27-11, TRN00000200.

this threshold in August 2019 to an average AVKR of 96% or higher over 9 of 12 days (evaluated over a 12-day moving window of “passing” days).

126. From the perspective of an ordinary commuter, the change from 98% AVKR to 96% AVKR was immaterial—the change would not affect how Ottawa residents would experience their commute on the system.¹⁶⁶ Mr. Gaul from STV gave evidence that both 96% and 98% respectively are “very high standards to achieve” and that from a “customer perspective”, they would not notice this difference.¹⁶⁷ The 98% AVKR threshold was in fact seen as a “stretch target” and not realistic or necessary for a project like the Confederation Line.¹⁶⁸

127. Peter Lauch’s evidence, as the former CEO of RTG, that the City first proposed the idea to the RTG Parties should be preferred over the City’s evidence to the contrary. In an August 15, 2019 email to RTG board members, Mr. Lauch wrote that the City “proposed a non-negotiable offer” of reducing the AVKR to 96% (among other terms).¹⁶⁹ Both Mr. Slade and Mr. Lauch had clear and specific recollections about how the City first raised the issue with them, and their evidence was consistent and plausible.

128. At the same time, neither Mr. Lauch nor Mr. Slade thought it was particularly relevant who first proposed the change. As Mr. Charter recognized, the discussion around changing the AVKR threshold was not influenced by who first suggested the idea.¹⁷⁰ On the contrary, the change was

¹⁶⁶ Cross-Examination of Peter Lauch, Transcript Vol. 13, pg. 138, lines 20-25, TRN00000202.

¹⁶⁷ Examination of Larry Gaul, Transcript Vol. 16, pg. 41, lines 26-27, TRN00000205.

¹⁶⁸ Examination of Peter Lauch, Vol. 13, pg. 132, lines 18-22, TRN00000202.

¹⁶⁹ Exhibit 208, Email from Peter Lauch to Ramon Villaamil et al, August 15, 2019, RTC00885962.

¹⁷⁰ Cross-Examination of Troy Charter, Transcript Vol. 16, pg. 151-152, lines 24-12, TRN00000207.

made only after vigorous and extensive discussions between the City, the RTG Parties, and STV on whether such a criterion was appropriate.

3. The City was, again, politically driven

129. The delivery of public infrastructure, and particularly of projects sufficiently large to require elected officials to dedicate substantial amounts of public funds and other necessary public resources, is inherently political—this is nothing new or surprising.

130. However, seasoned professionals (such as Mr. Slade), whose careers have spanned public infrastructure projects around the globe, described the political environment in Ottawa around the Confederation Line in similar terms: like nothing they had seen elsewhere before or since.¹⁷¹

131. There is little doubt that the persistence and intensity of the political pressure that the Confederation Line project attracted was disruptive and unhelpful. The City was responsible for fostering and feeding that pressure, or, for failing to take steps to insulate the project from it.

132. Unlike most P3 projects that are delivered in Ontario, in this case, the public authority made itself the contract administrator, without the support of an organization to manage or provide hands-on guidance and contract administration support. This meant there was no buffer between the political decision-makers answerable on a daily—or even hourly—basis to their constituents and the media, and the technical, practical, and commercial realities that complicate large and already-complex projects like these.

133. While this arrangement was not necessarily inherently problematic, in this case, the City continued to manifest great difficulty in administering the contract in a practical, rather than a

¹⁷¹ Examination of Matthew Slade, Transcript Vol. 10, pg. 21, lines 3-7, TRN00000199.

political, way. In effect, the City turned its contractual positions—at least some of its significant contractual positions around things like the RSA date—into political positions, by staking out positions in public that tied its hands when dealing with the RTG Parties.

134. By doing so, the City deprived itself of the opportunity to benefit from, for example, the advice of its own experts, who told it that the system would experience fewer service-impacting disruptions if it were to open with a soft launch¹⁷² or who would have counseled the City that no new service will be 100% reliable. Mr. Gaul, for example, said that he would have told the City that there will be problems on any new system that opens and it is not going to be problem free.¹⁷³

135. There is perhaps no more vivid example, during this period, of the City choosing to make a political decision, rather than a well-advised considered decision, than with respect to the launch of revenue service on September 14, 2019. Mayor Watson announced on June 18, 2019 that the Confederation Line would be open for service in September 2019, even though the Independent Certifier had not certified Substantial Completion at that time, let alone started Trial Running, for which Substantial Completion was a precondition.

136. Again, in July 2019, Mayor Watson doubled down, stating that the Confederation Line would be open for public service in September 2019. At the time he made this announcement, Trial Running had yet to start.

137. The testing and commissioning phase had demonstrated that the system was reliable. However—based on the advice given to the City by the RTG Parties and the City's own advisers that new rail systems, upon their opening, will typically encounter problems—it would have been

¹⁷² Examination of Matthew Slade, Transcript Vol. 10, pg. 16-17, lines 25-4, TRN00000199.

¹⁷³ Examination of Larry Gaul, Transcript Vol. 16, pg. 49, lines 20-23, TRN00000206.

naïve for the City to have expected that the Confederation Line was somehow unique and that the testing would find all problems and that despite passing all tests, problems would not arise following RSA. Multiple witnesses gave evidence that extending the testing period by a nominal amount of time (e.g., another week) would not have found the issues that appeared in the first few months of operations.¹⁷⁴ As discussed in succeeding sections, however, a soft launch could have alleviated some such issues.

138. In this case, the number of outstanding issues (which the City was intimately aware of) so close to RSA increased the likelihood of experiencing problems. The City was aware of the minor deficiencies that remained open on all 34 vehicles.¹⁷⁵ They also knew that there were issues with the wayside cameras and the display on the LRVs.¹⁷⁶ Multiple City officials were also aware of the ongoing switch issues, brake issues, and cracked cab doors.¹⁷⁷ Despite this, the City agreed Substantial Completion was met knowing there were deficiencies that might affect service if they manifested during Revenue Service.¹⁷⁸

139. It is without question that over the course of the summer of 2019, the City perceived itself to be under enormous pressure in view of how the project had progressed. Mr. Kanellakos candidly agreed with Commission Counsel that it was embarrassing for the City that RSA dates were missed.¹⁷⁹ Each time a date was missed, the City believes it experienced embarrassment, a

¹⁷⁵ Examination of Richard Holder, Transcript Vol. 9, pg. 44, lines 2-24, TRN00000198.

¹⁷⁶ Examination of Michael Morgan, Transcript Vol. 11, pg. 30, lines 10-22, TRN00000200.

¹⁷⁷ Examination of Michael Morgan, Transcript Vol. 11, pg. 30, lines 10-22, TRN00000200; Examination of John Manconi, Transcript Vol. 12, pg. 84, lines 11-28, TRN00000201.

¹⁷⁸ Examination of Richard Holder, Transcript Vol. 9, pg. 44, lines 2-5, TRN00000198.

¹⁷⁹ Examination of Steve Kanellakos, Transcript Vol. 15, pg. 59, lines 13-19, TRN00000204.

reputational hit, and a loss of public confidence.¹⁸⁰ By summer 2019, “there was a lot of public pressure, and Council pressure, media pressure with respect to the launch of the system.”¹⁸¹

140. Against this backdrop, Mayor Watson had a choice. He could have cautioned the public that, while they had been more than patient, the City would not deliver them an LRT service until it was certain to be ready and reliable, and that it would be imprudent to guess at when that would be until the service had been demonstrated to be so. Instead, he did the opposite—he guaranteed, to the public, the delivery of the LRT by September 2019. In so doing, the Mayor failed to highlight to the public any of the risks to achieving this date, which had been identified to the City by the RTG Parties and the City’s advisors, and of which the Mayor was well aware.

141. There is no analysis under which the City’s political decision-making was helpful to the success of the project. Rather, it added stress,¹⁸² limited flexibility,¹⁸³ limited the available options,¹⁸⁴ and made the completion of the project more difficult.¹⁸⁵

4. The City viewed rigid enforcement of contractual terms and placing pressure on the RTG Parties as panacea

142. As described earlier, the City took a rigid view to enforcing contract terms and believed that increasing pressure on the RTG Parties was the solution to all issues. With respect to the City’s approach to contract administration, witnesses from the City gave the following evidence:

¹⁸⁰ Examination of Steve Kanellakos, Transcript Vol. 15, pg. 59, lines 6-12, TRN00000204.

¹⁸¹ Examination of Steve Kanellakos, Transcript Vol. 15, pg. 59, lines 13-19, TRN00000204 (emphasis added).

¹⁸² Formal Interview of Peter Lauch, pg. 102, line 13, TRN00000034; Examination of Rupert Holloway, Transcript Vol. 5, pg. 136-137, lines 27-5, TRN00000189.

¹⁸³ Cross-Examination of Antonio Estrada, Transcript Volume 5, pg. 86, lines 15-19, TRN00000189.

¹⁸⁴ Formal Interview of Peter Lauch, pg. 107, lines 1-22, TRN00000034; Examination of Nancy Schepers, Transcript Vol. 3, pg. 129, lines 1-27, TRN00000185.

¹⁸⁵ Formal Interview of Rupert Holloway, pg. 128, lines 13-25, TRN00000013.

- (a) Ms. Simulik agreed with Commission Counsel that the City was trying to follow the Project Agreement as closely as possible because “it’s your contract...[that] decides how you should have acted”.¹⁸⁶
- (b) Ms. Simulik also agreed with Commission Counsel that the City’s approach was that there wasn’t a lot of leeway in the Project Agreement.¹⁸⁷
- (c) Ms. Simulik noted that this approach was dictated by the Executive Steering Committee and “Mr. Manconi and his legal advisors were telling us that we would weaken our position in future issues if we did not actually stick to the Project Agreement”.¹⁸⁸
- (d) When Ms. Simulik’s view that the City was trying to follow the Project Agreement as closely as possible was put to Ms. Schepers, she agreed with Ms. Simulik. Ms. Schepers further added that the City was monitoring and enforcing the terms of the contract.¹⁸⁹
- (e) Mr. Kanellakos agreed with Commission Counsel that his “guiding principle” as City Manager was to ensure that the requirements of the Project Agreement were met.¹⁹⁰

143. When rigidly enforcing the contract failed to meet the City’s aims of accelerating the project as much as the City wished, the City cast about for other levers with which to exert pressure

¹⁸⁶ Examination of Marian Simulik, Transcript Vol. 2, pg. 123, lines 6-9, TRN00000184.

¹⁸⁷ Formal Interview of Marian Simulik, pg. 88, lines 9-14, TRN00000042.

¹⁸⁸ Formal Interview of Marian Simulik, pg. 88, lines 15-23, TRN00000042.

¹⁸⁹ Examination of Nancy Schepers, Transcript Vol. 3, pg. 114, lines 21-28 and pg. 115, lines 1-4, TRN00000185.

¹⁹⁰ Examination of Steve Kanellakos, Transcript Vol. 15, pg. 2, lines 18-21, TRN00000204.

on the RTG Parties. Notably, after it took over the long-term debt, the City used the threat of its powers as lender whenever possible to maximize the pressure being felt by RTG.

144. In their internal discussions on WhatsApp, City staffers described the adversarial, non-collaborative, and harsh positions that the City had adopted in various interactions with the RTG Parties. They described some interactions with the RTG Parties in stark language, including spilling their “blood all over the boardroom floor”,¹⁹¹ “destroy[ing them] with penalties”,¹⁹² taking a “bludgeon[ing]”¹⁹³ approach to contract management; and finding “one throat to choke.”¹⁹⁴ These statements reveal a deeper truth: whatever the problem was, the City behaved as though it could be solved by increasing the pressure on the RTG Parties.

5. The City refused to agree to a “soft launch”

145. The City’s failure to even consider a “soft launch” or a progressive opening was a critical error and showed an inflexibility which worked against its own interests.

146. Any new commuter rail system will benefit from a period during which the system operates at less than full capacity to allow for “real-world” issues to reveal themselves, and for the operator and maintainer to hone their ability to work together to resolve those issues, all in a setting that minimizes the impact of these issues on riders.

147. Having a soft launch period is even more important when the rail system is new for the operator (which was the case here), and when the operator and maintainer are new to working

¹⁹¹ Exhibit 193, WhatsApp Chat Log 16 July 2019 to 9 October 2019, pg. 1, COW0593687.

¹⁹² Exhibit 167, WhatsApp Messages City of Ottawa 24 April 2019 to 29 December 2019, pg. 90, line 1094, STV0002337.

¹⁹³ Examination of Michael Morgan, Transcript Vol. 11, pg. 11, lines 16-20, TRN00000200.

¹⁹⁴ Formal Interview of John Jensen, pg. 56, line 12, TRN00000116.

together (which was also the case here). Ultimately it is well understood in the industry that a “bedding in” period will occur naturally, regardless of whether it is explicitly provided for in the contract. It is simply preferable, from the perspective of the riders, that an operator’s plan takes this “bedding in” into account, to minimize the disruptions that it will cause to service.

148. The RTG Parties made clear to the City that a soft launch was prudent and in the interest of Ottawa riders. For example, Mr. Slade provided detailed evidence on this point:

- (a) The soft launch proposal was raised with the City at the end of 2018.
- (b) The RTG Parties were suggesting that “a large part of the east end of the alignment at a level of maturity of testing commissioning so that if there had been an appetite to do it, we could have potentially opened...between Blair and University of Ottawa, and run a shortened part of the railway that would give... every party involved, RTM, the City, OC Transpo and the public, an opportunity to start using the system, albeit a reduced system, which would obviously provide benefits to what we perceived at the time, benefits to all parties, but it was not seen in that regard from the City”.¹⁹⁵
- (c) This idea, however, was “effectively shut down” by the City.¹⁹⁶
- (d) Again, in spring 2019, Mr. Slade tried to raise the idea of a soft launch.

¹⁹⁵ Examination of Matthew Slade, Transcript Vol. 10, pg. 14, lines 1-7, TRN00000199.

¹⁹⁶ Examination of Matthew Slade, Transcript Vol. 10, pg. 14, lines 8-13, TRN00000199.

- (e) Mr. Slade's idea was to have the entire line operate but reduce the hours of service. This was consistent with how Mr. Slade has opened other transit systems, including for established transit operators such as the London Underground.
- (f) The City rejected the idea, which Mr. Slade explained as follows: "it was another flat refusal, and, in fact, we didn't even really get an opportunity to even air the level of detail that I just presented to you just there. It was -- you know, we've -- you've raised this before, and it was rejected then, and it was just shut down firmly. It wasn't even -- I wasn't given five minutes of the floor to have a conversation. And it wasn't that I had a -- you know, had it all mapped out or had a formal proposal. I was expecting at that time for an opportunity to go away and work with some of the individuals from OC Transpo and from the City's consultants to flesh it out, to see whether or not it would have benefit or would be of something of interest".¹⁹⁷
- (g) Finally, to make matters worse, the City decided to end parallel bus services all at once when the winter season was about to start in Ottawa. The RTG Parties were not consulted that bus services would be cut off.¹⁹⁸

149. The City's rationale for refusing to discuss or even consider a soft launch or other alternative appears to be rooted in its resistance to collaborative problem solving and rigid view of the enforcement of contractual terms. Mr. Kanellakos explained that the City "wanted to receive the system [that] they [the RTG Parties] promised us which was ready from Day 1, once they

¹⁹⁷ Examination of Matthew Slade, Transcript Vol. 10, pg. 16, lines 4-12, TRN00000199.

¹⁹⁸ Examination of Matthew Slade, Transcript Vol. 10, pg. 70, lines 18-21, TRN00000199.

achieved RSA.”¹⁹⁹ In the City’s view, that was the commitment that the RTG Parties made. A soft launch was not part of the contract and therefore the City was not prepared to adopt or discuss it. Even if a soft launch could have been discussed and incorporated into the Project Agreement during the RFP, this should not have precluded the City from heeding the advice of its experts, assessing the facts on the ground, and engaging meaningfully with the RTG Parties with a view to the best interests of the Project.

150. Like with many of the City’s approaches to dealing with the RTG Parties, this approach ignored risks to the City that it could not escape, regardless of the terms of the contract. In this case, the City ignored the increased risk that a hard revenue-service opening posed to service reliability, and to the public’s experience of the service.²⁰⁰ The City appears to have once again believed that allocating the contractual responsibility for an outcome to RTG meant that the City bore no “risk” in relation to that outcome.

151. The City’s flawed risk assessment also appears to have prioritized the political risk of having to explain a soft launch to the public that would have been a departure from the public promises the City had made to that point, at the expense of a true assessment of the risks and benefits of proceeding with or without a soft launch.

152. The unwillingness of the City to meaningfully discuss a soft launch suggests a willful blindness on the part of the City to the realities of this complex project and what was happening on the project in real time. Ultimately, this inflexible and non-collaborative approach adopted by the City was detrimental to the effective resolution of the complex challenges encountered on the

¹⁹⁹ Examination of Steve Kanellakos, Transcript Vol. 15, pg. 64, lines 12-14, TRN00000204.

²⁰⁰ This should have motivated the City to opt to soft launch as further described below.

project, and thus, was an approach that was not in the best interest of the project or the public's perception of the project.

D. Launch of the Public Service and Maintenance Phase

1. The RTG Parties were ready for RSA

153. The Commission heard evidence from many parties that the Confederation Line was safe²⁰¹ and ready for service at RSA.²⁰² RTM was ready to perform its maintenance obligations at RSA; this was confirmed by Mr. Fodor.²⁰³ Mr. Fodor also confirmed that RTM had enough staff to maintain the system described in the Project Agreement²⁰⁴ and said that RTM was following its maintenance plan to a "T".²⁰⁵

154. Mario Guerra, current acting CEO of RTM, gave evidence that RTM received all necessary information and documents to maintain the system.²⁰⁶ Mr. Holloway confirmed that OLRT-C gave RTM all critical information that they needed to successfully maintain the system.²⁰⁷

155. Despite RTM's readiness, it needed to rely on its subcontractor, Alstom. Though the RTG Parties' constantly pushed Alstom maintenance (and it represented that it was ready for RSA), the reality was that Alstom maintenance was not prepared for RSA. The RTG Parties tried to provide Alstom with hands-on experience prior to RSA but it refused.

²⁰¹ See e.g. Cross-Examination of Sergio Mammoliti, Transcript Vol. 14, pg. 64, lines 16-28, TRN00000203; Examination of Lowell Goudge, Transcript Vol. 7, pg. 57, lines 9-16, TRN00000191; Examination of Thomas Prendergast, Transcript Vol. 12, pg. 45, lines 6-16, TRN00000103.

²⁰² Examination of Larry Gaul, Transcript Vol. 16, pg. 50, lines 16-18, TRN00000205; Examination of Derek Wynne, Transcript Vol. 14, pg. 25, lines 12-20, TRN00000203.

²⁰³ Examination of Tom Fodor (Parsons Panel), Transcript Vol. 8, pg. 174, lines 20-23, TRN00000197.

²⁰⁴ Examination of Tom Fodor (Parsons Panel), Transcript Vol. 8, pg. 134, lines 12-16, TRN00000197.

²⁰⁵ Examination of Tom Fodor (Parsons Panel), Transcript Vol. 8, pg. 176-77, lines 26-2, TRN00000197.

²⁰⁶ Examination of Mario Guerra, Transcript Vol. 18, pg. 34, lines 23-24, TRN00000208.

²⁰⁷ Examination of Rupert Holloway, Transcript Vol. 5, pg. 145, lines 18-19, TRN00000189.

156. Mr. Slade said that though the OLRT-C testing and commissioning team “invited [Alstom maintenance] to come and participate in testing commissioning to get familiar with the equipment”, Alstom did not accept this offer.²⁰⁸ Mr. Slade described that OLRT-C “would ask them to come and participate and they wouldn’t...you’d get a negative response from them saying it’s not in our contract to do that. We’re not coming.”²⁰⁹

157. Alstom committed to meeting their maintenance obligations and increasing resources prior to RSA. This was confirmed through correspondence with the City²¹⁰ and in a call with the CEO of Alstom.²¹¹ However, despite RTM repeatedly voicing concerns, Alstom largely did not increase their resources.²¹² Ultimately, as Mr. Guerra described, RTM felt it had exhausted its efforts and there was nothing further that RTM could have done to encourage Alstom to improve their maintenance efforts.²¹³

158. There were also issues with the reliability of the Alstom vehicles²¹⁴ which meant that the vehicles were difficult to maintain. This led to problems during the handover.²¹⁵

2. Alstom’s behaviour aggravated any issues that arose

159. Throughout the operation of the system, Alstom has sought to dodge its responsibilities by hiding behind its respective contractual status as vehicle supplier and maintainer. This posturing

²⁰⁸ Formal Interview of Matthew Slade, pg. 110, lines 12-24, TRN00000103.

²⁰⁹ Formal Interview of Matthew Slade, pg. 110, lines 12-24, TRN00000103.

²¹⁰ Cross-Examination of Tom Prendergast, Transcript Vol. 12, pg. 50-51, lines 22-28, TRN00000201.

²¹¹ Cross-Examination of Tom Prendergast, Transcript Vol. 12, pg. 52, lines 9-17, TRN00000201.

²¹² Examination of Mario Guerra, Transcript Vol. 18, pg. 24-25, lines 27-5, TRN00000208.

²¹³ Examination of Mario Guerra, Transcript Vol. 18, pg. 37, lines 2-6, TRN00000208.

²¹⁴ Cross-Examination of Tom Fodor (Parsons Panel), Transcript Vol. 8, pg. 174, lines 29-28, TRN00000197.

²¹⁵ Cross-Examination of Tom Fodor (Parsons Panel), Transcript Vol. 8, pg. 174 - 175 lines 5-11, 128-129, TRN00000197.

by Alstom belies the fact that Alstom Canada—the exact same entity—acts as both vehicle supplier to OLRT-C and as vehicle maintainer to RTM.²¹⁶ For example, in respect of CC defects that have occurred during the maintenance period, Alstom in its maintainer role has at times declined to perform maintenance work when it deems (without agreement by RTM or RTG) the defect to be caused by the supply of the vehicle, despite the fact that it is also the vehicle supplier.

160. As such, the idea that Alstom was not adequately prepared for maintenance due to a happenstance of the contract is inaccurate. Alstom as the maintainer understood (or ought to have understood) the vehicles in the same manner as Alstom as the supplier. Additionally, during his testimony, Mr. Goudge confirmed that Alstom had a contract very early on to provide maintenance on the vehicles.²¹⁷

161. Alstom has also created other issues. For example, when Alstom hostlers brought the LRVs into the light maintenance bay, they did not obey the speed limits. As a result, fuses blew and had to be replaced. To resolve the problem, the RTG Parties counselled Alstom about the procedure for bringing LRVs into the maintenance bay. Since then, the problem has dissipated.²¹⁸

3. Issues on a new transit system are common

162. Initial challenges on a new transit system are common. That is even more true in a case such as the Confederation Line: the system itself was brand new; the City had never operated light rail vehicles; and the maintainer and the operator had never worked together. Common sense would dictate there would be some growing pains. Nevertheless, the City promoted the system to

²¹⁶ Examination of Mario Guerra, Transcript Vol. 18, pg. 6, lines 3-5, TRN00000208.

²¹⁷ Cross-Examination of Lowell Goudge, Transcript Vol. 7, pg. 76, lines 17-19, TRN00000191.

²¹⁸ Formal Interview of Steve Nadon, pg. 85-86, lines 1-9, TRN00000169.

Ottawa commuters as a “turnkey” system, when an experienced transit operator knows that there simply isn’t such a thing.

(a) *The City knew the system may have challenges*

163. The City knew the Confederation Line may have challenges during its initial operation. For example, Richard Holder from the City agreed with Commission Counsel that the City knew there were reliability issues during the early days of the Confederation Line that could interfere with the provision of reliable service to the public.²¹⁹ Mr. Holder also agreed that there was a potential risk for more issues to arise as the system continued to run.²²⁰

164. The City had an external expert advising on reliability issues that could arise when the system opens for public service, Thomas Prendergast. He gave evidence that “all the way through and including when it [vehicles] went through trial running and started service, we identified issues that would affect reliability.”²²¹

165. Similarly, Mr. Gaul expressed the following view to the City in terms of opening for public service:

Now, it's not going to be 100 percent, as I said before. It's -- you're going to have problems on any new system that just opens up, and so I would probably have told them that this is not going to be problem free. We're going to experience problems. It's going to take a while for this learning curve to work its way through.²²²

²¹⁹ Examination of Richard Holder, Transcript Vol. 9, pg. 66, lines 8-11, TRN00000198.

²²⁰ Examination of Richard Holder, Transcript Vol. 9, pg. 66, lines 12-16, TRN00000198.

²²¹ Examination of Tom Prendergast, Transcript Vol. 12, pg. 36, lines 26-28, TRN00000201.

²²² Examination of Larry Gaul, Transcript Vol. 16, pg. 49, lines 20-23, TRN00000206.

(b) *The City failed to inform the public of the anticipated challenges*

166. The City had the sole authority to determine when public service would launch. The RTG Parties had no input into this decision. As explained in the paragraph above, the City knew that there would be challenges when service commenced. It was incumbent on the City to apprise the public that there would be growing pains and that their patience is requested.

167. The City also had sole authority to determine what information about the system became public, and when. Under Schedule 18 of the Project Agreement, it is the City's responsibility to communicate with the media. The RTG Parties are prohibited from communicating with the media unless they had received approval from the City to do so. The City could have been transparent with the public and educate them about what to expect. It chose not to.

4. The City flooded the RTG Parties with work orders

168. Shortly after Revenue Service began, the City was consistently and improperly entering work orders into Integrated Management Information Reporting System ("IMIRS"), the project reporting system, in large batches rather than promptly entering these work orders as each issue arose. In his evidence, Mr. Holder acknowledged that at one point, 109 work orders were entered on IMIRS at once.²²³ In his evidence, Mr. Guerra recalled that over 900 work orders were closed in September 2019 alone, including for items that were not safety or service critical, such as reporting a dirty floor in the station.²²⁴ Mr. Guerra noted that these items were exaggerated by the City and led to RTM being "overwhelmed".²²⁵ Mr. Guerra further noted that RTM tried to make the City see that the way work orders were being entered in "batches" made it impossible for RTM

²²³ Cross-Examination of Richard Holder, Transcript Vol. 9, pg. 72, lines 19-23, TRN00000198.

²²⁴ Examination of Mario Guerra, Transcript Vol. 18, pg. 42, lines 8-26, TRN00000208.

²²⁵ Examination of Mario Guerra, Transcript Vol. 18, pg. 42, lines 8-26, TRN00000208.

to react in a timely manner. However, the City continued in this way at least for the month of September, during the launch of public service.²²⁶

169. This made it impossible for the RTG Parties to be responsive to the work orders being entered into IMIRS within the timelines contemplated by the Project Agreement and led to the improper penalization of RTG and RTM. The Project Agreement permits the City to make adjustments, including the levying of Deductions, to any Monthly Service Payment owing to RTG, for certain categories of events or failures (a Quality Failure, a Service Failure, or an Availability Failure meaning either a Vehicle Kilometres Availability Failure or a Station Availability Failure). The large volume and batching of work orders led to additional deductions being imposed by the City for the RTG Parties' alleged failure to respond within the required timeline.

170. The RTG Parties also required significant extra resources to manage the City's conduct, including, for example, resources to address all of the work orders generated by the City, to reconcile all of the deductions that the City sought to impose and the dedication of valuable senior resources to address disputes over the application of the Project Agreement Deductions regime.

171. The City's aggressive and punitive interpretation and enforcement of the contract for every item that arose during what should have been the natural bedding-in period of the system was counterproductive to the goal of providing reliable service to the customers.²²⁷ Such conduct was in line with the City's approach of penalizing the RTG Parties rather than collaboratively and meaningfully addressing issues as they arose to ensure better service for the Ottawa public.

²²⁶ Examination of Mario Guerra, Transcript Vol. 18, pg. 43, lines 14-20, TRN00000208.

²²⁷ Examination of Mario Guerra, Transcript Vol. 18, pg. 43, lines 4-7, TRN00000208.

5. The root cause of the first derailment is not established

172. The first derailment occurred on August 8, 2021 and related to a vehicle that was out-of-service, while the train was being towed back to the station.

173. To date, the root cause of this derailment has not been determined. The proximate cause of the derailment was the failure of the axle on the bogie to which the axles (and, hence, wheels) are attached through bearings, due to significant heat and abrasion, causing the wheel to come off the axle. Mr. Declercq acknowledged that Alstom was aware that there were issues with the axle prior to the OLRT Project.²²⁸

174. Five weeks before the first derailment, Alstom was also aware that there was a spline wear problem.²²⁹ The spline is an integral component of the broader axle system because it connects the two hubs.²³⁰ Given the importance of the spline to the axle system and Alstom's awareness of spline wear, it started retrofitting splines in vehicles in other cities²³¹ and had a plan to replace the axles in Ottawa.²³² Ultimately, the axles in Ottawa were not replaced prior to the derailment. Despite Alstom's keen awareness of the dangers of spline wear, the spline wear investigation is not explained in their root cause analysis of the first derailment. In his testimony to the Commission, Mr. Goudge admitted that this is a shortcoming of the analysis.²³³

175. While the City insisted on on-board heat detection following the derailment, Alstom was consistently of the opinion that an on-board heat detection system would not have prevented the

²²⁸ Cross-Examination of Yves Declercq, Transcript Vol. 4 (Translated), pg. 145, lines 15-20, TRN00000210.

²²⁹ Cross-Examination of Yang Liu, Transcript Vol. 10, pg. 204, lines 13-16, TRN00000199.

²³⁰ Cross-Examination of Yang Liu, Transcript Vol. 10, pg. 202, lines 21-24, TRN00000199.

²³¹ Cross-Examination of Yang Liu, Transcript Vol. 10, pg. 204, lines 17-20, TRN00000199.

²³² Examination of Lowell Goudge, Transcript Vol. 7, pg. 45, lines 1-3, TRN00000191.

²³³ Examination of Lowell Goudge, Transcript Vol. 7, pg. 45, lines 21-27, TRN00000191.

derailment, and in any event it was premature before the root cause was established.²³⁴ Alstom undertook to carry out a root cause analysis and despite several requests for updates from RTM, no analysis was provided for seven months.²³⁵ Alstom did not provide an analysis until approximately one month prior to this public inquiry, entitled Citadis Spirit – LRV 1119 Derailment Investigation Report.²³⁶

176. That purported root cause analysis has several shortcomings. The investigation and subsequent report were done by individuals employed by, and not independent from, Alstom²³⁷ and the RTG Parties were not asked for their input.²³⁸ Mr. Declerq acknowledged that he was aware that neither RTG nor RTM agree with this analysis.²³⁹ Mr. Guerra confirmed that the root cause analysis is preliminary in nature and not a final root-cause analysis.²⁴⁰

177. Ultimately, on its face, Alstom's root cause analysis is preliminary, inconclusive, and acknowledges that further investigation is required. RTM and RTG are currently in the process of obtaining an independent root cause analysis.

6. The second derailment resulted from Alstom's failure to torque a bolt

178. The second derailment occurred on September 19, 2021, when a train being operated by a City driver derailed leaving Tremblay Station, travelled approximately 1,400 feet, over a rail

²³⁴ Cross-Examination of Mario Guerra, Transcript Vol. 18, pg. 79, lines 15-19, TRN00000208.

²³⁵ Cross-Examination of Mario Guerra, Transcript Vol. 18, pg. 140, lines 2-9, TRN00000208.

²³⁶ Exhibit 91, LRV1119 Derailment Investigation Report, May 10, 2022, COM0010118; Cross-Examination of Yves Declerq, Transcript Vol. 4 (Translated), pg. 144-145, lines 20-1, TRN00000210.

²³⁷ Cross-Examination of Yves Declerqc, Transcript Vol. 4 (Translated), pg. 139, lines 12-18, TRN00000210.

²³⁸ Cross-Examination of Yves Declerqc, Transcript Vol. 4 (Translated), pg. 141, lines 4-10, TRN00000210.

²³⁹ Cross-Examination of Yves Declerq, Transcript Vol. 4, pg. 93, lines 4-7, TRN00000186.

²⁴⁰ Cross-Examination of Mario Guerra, Transcript Vol. 18, pg. 81, lines 8-14 and pg. 140, lines 2-9, TRN00000208.

bridge, and hit a signal mast, switch 315 and the switch control machine that controls switch 315, causing the train's emergency brake to kick in. There were no injuries.

179. The second derailment does not appear to have been the result of a repetitive or general quality issue. Rather, the second derailment stemmed from isolated human errors—a bolt that had been removed for inspection following the first derailment was not properly re-torqued by the Alstom staff inspecting the vehicle,²⁴¹ and the OC Transpo driver operating the train failed to notice the derailment and stop the train before additional damage occurred.

7. The delay in the return to service after the second derailment was not related to reliability issues, but to political pressure from and on the City.

180. It became evident early on that the second derailment likely stemmed from isolated human errors involving Alstom staff inspecting the vehicle. Despite this, the City refused to allow a return to service earlier than almost two months following the derailment. It did so under the guise of safety, when it appears that the City was attempting to use paperwork and third-party experts as political cover and to backstop its own technical limitations. The City has a practice of using external consultants not simply as a replacement for in house expertise and experience, but to provide comfort and cover for City staff and OC Transpo in their dealings with City Council and the Transit Commission (comprised primarily of elected officials).

181. On September 20, 2021, the day after the derailment, there was a scheduled Transit Commission meeting. As Brandon Richards, Chief of Safety at the City, confirmed, at this meeting or shortly after, the City provided direction to retain an independent, third-party safety expert who

²⁴¹ Cross-Examination of Yves Declerq, Transcript Vol. 4, pg. 92, lines 3-5, TRN00000186.

would approve the return to service.²⁴² RTG was advised on September 24, 2021 that STV Inc. was being retained by the City as its third-party expert, and Mr. Richards further confirmed that subsequent to that, RTM and Alstom would attend meetings with STV to get the process of a return to service plan in place.²⁴³

182. However, Mr. Richards recalled that there was a significant backlash against STV's appointment almost right away from the media and certain public officials related to the fact that STV had provided consulting services during the Ottawa LRT's construction. Mr. Richards confirmed that it was only on October 4, 2021, that there was a meeting between the City, RTG, RTM, Alstom and TRA Inc., who would go on to be the City's independent third party expert, and that TRA was not formally appointed until a few days later, two and half weeks after the derailment.²⁴⁴ Mr. Richards agreed that the City spent a considerable amount of time during the return to service plan trying to find the consultant and changing consultants.²⁴⁵

183. Mr. Richards also confirmed that the SMS (Safety Management System) plan is a governance document that is updated annually by RTM²⁴⁶ and by OC Transpo.²⁴⁷ Despite this, the SMS plan is an important example of the City and TRA being fixated on items that were not connected to the safe return to service. TRA's and later the City's obsession with revisions to the SMS was not targeted at the issues relevant to the second derailment; it was about renegotiating an existing plan that had little to do with the issues RTG then faced. However, the City and TRA

²⁴² Cross-Examination of Brandon Richards, Transcript Vol. 17, pg. 200, lines 7-9, TRN00000207.

²⁴³ Cross-Examination of Troy Charter, Transcript Vol. 16, pg. 200, lines 19-27, TRN00000206.

²⁴⁴ Cross-Examination of Troy Charter, Transcript Vol. 16, pg. 202, lines 1-2, TRN00000206.

²⁴⁵ Cross-Examination of Troy Charter, Transcript Vol. 16, pg. 202, lines 23-28, TRN00000206.

²⁴⁶ Examination of Brandon Richards, Transcript Vol. 17, pg. 119, lines 7-12, TRN00000207.

²⁴⁷ Examination of Brandon Richards, Transcript Vol. 17, pg. 120, lines 5-8, TRN00000207.

insisted on an overhauling of the plan after the second derailment, even though TRA provided RTM and RTG with little guidance as to changes it wanted reflected in the document.

184. The City should have been focussed on a speedy, safe and reliable return to service, but instead chose to administer the contract in such a way as to show the public and the elected officials who oversee the transit system in Ottawa that the City was leaving no stone unturned in its efforts to penalize RTG.

8. The RTG Parties have implemented robust derailment mitigation measures

185. When a derailment occurs, the most important thing is to respond immediately, focus on safety and mitigate the issues that caused the derailment. That is precisely what the RTG Parties did. They have undertaken a variety of remedial measures to address the derailment issues including:

- (a) Implementing a bearing inspection check every 7,500 kilometers across the fleet to identify bearing looseness before it becomes a safety concern. This is an aggressive inspection interval;
- (b) Strengthening an already robust quality assurance process for retrofit activities;
- (c) Enhancing winter operations; and
- (d) Pro-actively removing trains from service (train swap) through fleet support monitoring, train tracer speed sensors, and faults.²⁴⁸

²⁴⁸ See Examination of Troy Charter, Transcript Vol. 16, pg. 147-148, lines 18-10, TRN00000206; Examination of Brandon Richards, Transcript Vol. 17, pg. 162-163, lines 21-17, pg. 164-166, lines 20-11 and pg. 168-170, lines 13-3, TRN00000207.

186. The RTG Parties worked closely with Alstom to ensure quality control was improved, including ensuring that Alstom checked all necessary aspects of its regular maintenance.²⁴⁹ Among others, RTM has now implemented 24/7 management oversight of Alstom maintenance, increased staffing of subject matter experts to provide technical oversight to Alstom maintenance, and quality checks on preventative maintenance activities.²⁵⁰

187. These mitigation measures coupled with the RTG Parties' long-term commitment meant that all participants (including the City) had confidence that robust mitigations measures were in place and there could be resumption of service.²⁵¹

9. Other reliability issues with the rolling stock stemmed from Alstom's failures

188. Although it was sold to the RTG Parties and the City as a service-proven vehicle, the Alstom vehicle used on the project was ultimately a prototype. Further to those discussed above, several other issues that have arisen on the project, including the cracked wheels, wheel flats, issues with the doors and the CVS, ultimately lie with Alstom as the rolling stock provider.

10. The City's approach to certain maintenance issues has been unrealistic and punitive

189. As outlined above, the City has not acted in a cooperative fashion or in the spirit of partnership with the RTG Parties for many years. The City has forgotten that public-private partnerships are exactly that: partnerships between the private and public sectors to deliver vital infrastructure to the public. The City's approach is encapsulated in part by Mayor Watson's

²⁴⁹ Examination of Mario Guerra, Transcript Vol. 18, pg. 55-59, lines 24-12, TRN00000208.

²⁵⁰ Examination of Mario Guerra, Transcript Vol. 18, pg. 56, lines 14-17 and pg. 57, lines 4-5, TRN00000208.

²⁵¹ Cross-Examination of Brandon Richards, Transcript Vol. 17, pg. 191, lines 12-19, TRN00000207.

testimony in which he described the relationship between RTG and the City as that of customer and vendor, or buyer and seller.²⁵²

190. Despite the fact that the City has still not paid OLRT-C for certain variations and claims stemming from the construction period of the project, RTG's expectation at the commencement of Revenue Service was that the City would act reasonably in administering the Project Agreement, with a view to establishing good working relationships between the stakeholders for the benefit of the system (including, most importantly, its riders).

191. Regrettably, the issues outlined above have proven to be part of a larger strategy engaged in by the City to starve the RTG Parties and its subcontractors of funds in the naïve hope that this will produce the results the City wants. John Traianopoulos agreed that interpreting the payment mechanism in an overly punitive way is counterproductive and antithetical to the best interests of the functioning of the system.²⁵³ This is an extension of the City's attempts to primarily use negative pressure as a tool to achieve Project outcomes. This is not good partnership, effective problem solving or good project management. Instead, it has created an environment in which the RTG Parties are constantly on a dispute footing (both with the City and as between themselves) and in which people are often working for free or for far less than they bargained. Relationships between the parties have become positional rather than collaborative. Simply put, when parties are not being paid what they are owed for delivering good services (as the system frequently has delivered), relationships break down and the project faces increased strain.

²⁵² Cross-Examination of Jim Watson, Transcript Vol. 14, pg. 268, lines 11-20, TRN00000203.

²⁵³ Examination of John Traianopolous, Transcript Vol. 3, pg. 33, lines 4-14, TRN00000185.

192. It seems that the City's decision to withhold payments (even in months of very high service levels) was a strategic decision directed from the very top. In a text message to Michael Morgan, John Manconi wrote "the [M]ayor has ordered zero money goes to rtg or rtm [sic]. The tap is officially off and the [M]ayor has full authority."²⁵⁴

193. While this is not the forum to litigate the many disputes between the parties, it is worth noting some of the payment disputes with the City to illustrate the punitive and unproductive approach the City has taken to contract administration following Revenue Service.

194. For example, the City has consistently withheld payment from RTG for undisputed amounts and without providing the necessary documentation to RTG that supported the City's entitlement to do so. The non-payment of undisputed amounts due to RTG has caused considerable financial strain on RTG and its subcontractors, who have devoted significant number of employees and other resources to the Project. None of RTG's subcontractors envisioned or planned for stretches of months with no payment being made by the City despite there being undisputed amounts payable by the City, much less with no information from the City as to the basis for such non-payment, all while ensuring the System runs as reliably as possible.

195. The City has also taken the position it is entitled to carry forward Deductions from one month to the following month.²⁵⁵ The City has carried forward Deductions several times, resulting in non-payment for months where service levels were very high. This is clearly not permitted under the Project Agreement's Payment Mechanism: IO's witness, Mr. Traianopoulos, confirmed that this interpretation of the Project Agreement (which is IO's template agreement) was contrary to

²⁵⁴ Exhibit 167, WhatsApp Messages City of Ottawa 24 April 2019 to 29 December 2019, pg. 102, line 2232, STV0002337.

²⁵⁵ Examination of Nicolas Truchon, Transcript Vol. 18, pg. 240, lines 2-6, TRN00000208.

IO's interpretation and to Mr. Traianopoulos' experience having worked with similar agreements.

²⁵⁶ It has led to the City applying millions of dollars in Deductions, meaning millions of dollars in lost payments to RTG and its subcontractors, which adds further pressure on the parties tasked with delivering this Project.

196. The outcome has been that there have been numerous months where service availability has been very high and even exceeded Project Agreement requirements, yet Deduction and Failure Point amounts (as defined in the Project Agreement) during those months have (according to the City) also been very high resulting in the City making no payments to the RTG Parties—those tasked with maintaining the LRT.²⁵⁷

PART III. RECOMMENDATIONS

197. Based on the evidence before the Commission, and in light of its mandate, the RTG Parties respectfully request that the Commission make the following recommendations to further improve infrastructure development and P3 projects in Ontario:

(a) *Public authorities should limit political interference and improve transparency.* In particular:

(i) *Public authorities should be transparent with their public.* When it is known to a municipality or other public authority that a transit project may have challenges (as is commonly the case), such issues should be clearly and honestly stated to the public. The public

²⁵⁶ Cross-Examination of John Traianopoulos, Transcript Vol. 3, pg. 81, lines 17-27, TRN00000185.

²⁵⁷ Examination of Mario Guerra, Transcript Vol. 18, pg. 29, lines 4-11, TRN00000208; Examination of Nicolas Truchon, Transcript Vol. 18, pg. 160, lines 3-14, TRN00000208.

deserves to know. It is their transit system and issues on the system can cause significant disruptions to their lives.

- (ii) *Political pressure is detrimental to all major projects.* While significant infrastructure projects usually have some element of political pressure and involvement, political figures making public declarations of when the system will be open and how it will function—without regard for the current state of the project—places inappropriate pressure on all actors involved, that is ultimately unhelpful. Providing a window of time to the public in respect of important dates would be preferable to a fixed date.

- (b) *Complex projects require consistent cooperation and coordination among all parties.* The success of a complex project is conditional on having both the public and private sector project participants working in effective collaboration with each other. In order to realize this collaboration between the parties, the obligation to be collaborative should be made contractual and better incorporated into future project agreements. The obligation to collaborate should be present regardless of the procurement model suggested for a particular project.

- (c) *Public authorities should not buy out private debt in P3 projects.* The counterweight of the commercial obligations owed to private lenders is a foundational premise of the P3 model, on which its best practices have been developed. The rights and obligations of all parties are drastically

recalibrated by such a significant action as putting the public authority into the shoes of the long-term lender.

- (d) *Public authorities should not conflate risk allocation and reasonable contract administration.* Merely because the public sector has allocated a risk to the private sector, the public sector is not absolved from taking reasonable positions when such a risk may manifest. While a contract may provide a particular right, contractual rights sometimes need to bend to “on the ground” realities. Rather than measuring their success by the letter of a contract, public authorities need to have an outcomes-centered approach to infrastructure delivery. Risk allocation should be re-thought more generally, lest public transit infrastructure become unbuildable due to a lack of bidders.
- (e) *Public authorities and the public sector are best positioned to take charge of and counteract optimism bias.* As stated above, optimism bias is something that applies to every player in complex projects; it is a structural problem inherent to the system itself and therefore requires a structural solution. Governments, which can establish rules of general application, not the private sector, are best positioned to implement a structural solution across the market. More fundamentally, the public sector must account for its own failures to account for optimism and other biases. While the Commission heard evidence that the private sector applied the prevailing tools to account for risk when bidding the project, the public sector (in this

case, the City) was driven by and incentivised a desired political outcome (i.e., achieving the project within affordability cap) through its procurement model. The public sector should be encouraged to adopt structural solutions for addressing this type of bias on future procurements, including in respect of their budgeting process and contingency reserves allocated for liabilities under the contract and project outcomes that remain the responsibility of the public authority.

PART IV. CONCLUSION

198. The Confederation Line was a complex project. As with any major infrastructure project, the project teams needed to adapt, evolve and work together to select the best approach with respect to certain events that happened in Ottawa (for example, the sinkhole). The City's rigidity, its zero-sum approach and its dogmatic adherence to the self-serving philosophy that such events were the RTG Parties' "problem" was misguided and counter productive. All stakeholders have a role to play in overcoming unforeseen challenges, especially the project owner, who could have used the opportunity to be a leader in the partnership toward a better project outcome.

199. The RTG Parties have consistently endeavored to do their best to provide a transit system that works well for the people of Ottawa. They have devoted and continue to devote significant resources and technical professionals to design, develop and maintain the Confederation Line. When phases of the project were delayed and/or unforeseeable events arose, the RTG Parties implemented effective and pragmatic solutions. In particular, the RTG Parties have been driven

by the twin imperatives of safety and reliability. It has taken strong measures to ensure that the system is safe and worked extensively to improve its reliability, which currently stands at 98.9%.²⁵⁸

200. Despite the challenges, Ottawa currently has a highly sophisticated transit system that is safe and reliable. The RTG Parties remain committed to strengthening their partnership with the City through the remainder of the contract as they approach Stage 2.

ALL OF WHICH IS RESPECTFULLY SUBMITTED this 12th day of August, 2022.



Per: Linda R. Rothstein, Gordon Capern, Jean-Claude Killey,
Michael Fenrick, Mannu Chowdhury, Kartiga Thavaraj, Jesse Wright

²⁵⁸ During June 2022, the system's aggregate service reliability ratio was 99.97%. During August 2022, that number reduced to 98.9% in part due to unforeseeable lightening strikes which caused some service disruptions.

CLOSING STATEMENT OF THE RTG PARTIES

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