

March 10, 2020

Mr. Peter Lauch, CEO Rideau Transit Group GP 1545 Carling Avenue Suite 406 Ottawa, ON KIZ 8P9

Our reference: OTT-RTG-LET-0307

Dear Mr. Lauch:

RE: Ottawa LRT Project – Project Agreement dated February 12, 2013 ("PA" or "Project Agreement")¹ between the City of Ottawa (the "City") and Rideau Transit Group

Partnership ("RTG")

S. 45.1 – Notice of Project Co Event of Default

The City hereby notifies RTG that Project Co Events of Default have occurred. In particular, Project Co Events of Default (individually each a "Default" and collectively the "Defaults") have arisen pursuant to Sections 45.1(a)(iv), (v), (x), (xi), and (xii) of the Project Agreement. Each Default is described briefly below. RTG is aware of the details of its ongoing failure to design, build and maintain a reliable System and the ongoing nature of each of its Defaults in relation to the System, given, for example, the Project record correspondence on each of these issues, as well as the various meetings and discussions that have taken place to date.

Simply put, the System that RTG has supplied is not performing consistently or reliably. RTG is required to provide a System that can reliably support immediate transit ridership of 10,000 people per hour per direction and growing to 23,000 people per hour per direction over time. RTG has struggled and continues to struggle to complete many of the activities within the Project Scope including its notable struggle to commission the System. Following the belated launch of the System, when RTG insisted its System was ready for service to commence, a myriad of technical and Vehicle issues have arisen, resulting in an ongoing failure of performance and reliability that has reached, and significantly exceeded, the level of Default, as described below. It is RTG's responsibility to address these Defaults.

Without limiting the generality of the foregoing, under the Project Agreement, it is RTG that is the single point of responsibility for its Subcontractors and the City will not accept any attempt by RTG to avoid its own responsibility by blaming others further down the contractual chain, such as OLRT-C or Alstom. RTG is responsible for designing, building, financing, and maintaining the System and in respect of issues related to both Design and Construction Works and Maintenance Services, these are RTG's issues to resolve and the City requires that the partners that make up RTG bring the necessary resources to bear to collectively address these serious failures so as to meet the performance standards set out in the Project Agreement.

¹ All capitalized terms not defined herein shall bear their meanings as defined in the Project Agreement



1) Failure Points

Failure Points are allocated to RTG in respect of the occurrence of Availability Failures, System Events, Service Failures and Quality Failures as determined by Schedule 20 to the Project Agreement.

The City is entitled to make Deductions from Monthly Service Payments to RTG based on Quality Failures, Service Failures, and Availability Failures in accordance with Schedule 20 of the Project Agreement.

In addition, the accumulation of Failure Points triggers the exercise of important City rights under the Project Agreement if specified thresholds are met. In other words, Failure Points discipline performance that is so far below the contracted threshold that financial penalties no longer suffice.

As explained in the City's letter of December 18, 2019 (OTT-RTG-LET-0293), as at that date RTG had exceeded the Failure Point thresholds for the exercise of the City's remedial rights. Since that time, the Failure Points have continued to escalate. At this point, the System has been operating for more than six months and the City has observed unacceptable levels of poor performance such that escalated measures are warranted. RTG has exceeded the threshold for a full year in respect of Default in just six months.

Further, RTG has been making inappropriate adjustments to its Daily Operating Reports and Performance Monitoring Reports, including as described in the City's letters of January 14, 2020 (OTT-RTG-LET-0298 and OTT-RTG-LET-0299). These adjustments to RTG's own data appear to be an attempt by RTG to evade its accountability. The City has disputed RTG's adjustments. For example, the City does not accept RTG's bald assertions that there are no Key Performance Metrics ("KPMs") associated with certain recorded failures. RTG has taken a very narrow view of the KPMs including taking the view that KPMs cannot overlap with each other or as between System Events and Vehicle Availability, which is simply incorrect. RTG also wrongly asserts that there was no impact to service in relation to certain failures that did in fact have an impact. In addition, RTG has attempted to characterize some items as relating to the Minor Deficiency List but this characterization is not valid. As a result of RTG's failure to put in place proper Standard Operating Procedures, work orders are not properly tracked so as to confirm how and when items are resolved. This issue is RTG's responsibility to resolve given RTG's obligation to develop and maintain a proper data collection system (the IMIRS System). In summary, the adjustments made by RTG are improper and have been rejected by the City.

Even with the RTG data available, and taking the most conservative view, the System does not come remotely close to the level of reliability required under the Project Agreement. The performance level is so poor that the Default level has been reached.

In particular, pursuant to s. 45.1(a)(x) to (xii) of the Project Agreement, a Default occurs if RTG is awarded a total of:

- 1,300 or more Failure Points in any three (3) rolling Contract Months
- 1,600 or more Failure Points in any six (6) rolling Contract Months



2,000 or more Failure Points in any twelve (12) rolling Contract Months

Without adjustments, the Failure Points presently exceed 130,000, based on the data drawn directly from RTG's own IMIRS System. The totals from the IMIRS System for all failure types are as follows:

| Туре | Month | | | | | | Totals |
|-------|---------|--------|--------|--------|--------|--------|---------|
| | Sept'19 | Oct'19 | Nov'19 | Dec'19 | Jan'20 | Feb'20 | |
| TOTAL | 89,110 | 12,310 | 6,175 | 17,242 | 4,155 | 2,484 | 131,474 |

Even focusing only on major failures, as described below, the Default level has been exceeded by more than 300%.

In particular, the City has assessed RTG's Failure Points as shown in the IMIRS System in respect of only Vehicle Availability, Station Availability, and System Failures as follows:

| Туре | Month | | | | | | Totals |
|----------------------|---------|--------|--------|--------|--------|--------|--------|
| | Sept'19 | Oct'19 | Nov'19 | Dec'19 | Jan'20 | Feb'20 | |
| Vehicle Availability | 80 | 30 | 30 | 10 | 300 | 240 | 690 |
| Station Availability | 30 | 30 | 90 | 30 | 0 | 0 | 180 |
| System Event | 715 | 325 | 390 | 195 | 1,885 | 1430 | 4,940 |
| TOTAL | 825 | 385 | 510 | 235 | 2,185 | 1,670 | 5,810 |

| -Month Accumulations | |
|----------------------|------|
| Sept'19 to Nov'19 | 1720 |
| Oct'19 to Dec'19 | 1130 |
| Nov'19 to Jan'20 | 2930 |
| Dec'19 to Feb'20 | 4090 |

| 6 - Month Accumulation | | |
|------------------------|---|-------|
| Sept'19 to Feb'20 | 4 | 5,810 |

Therefore, even based on the conservative assessment of only considering Failure Points for Vehicle Availability, Station Availability, and System Events, RTG has dramatically exceeded the three month allowable total in each rolling three Contract Month period since the beginning of the Maintenance Term and has also exceeded the total allowable Failure Points for the six Contract Month rolling period. In fact, and as noted above, RTG has exceeded the threshold for Default for the twelve-month period in only six months.

Accordingly, a Default has occurred under each of Section 45.1(a)(x), (xi), and (xii). While the City recognizes that RTG takes a different position as a result of its manual adjustments of the Failure Points, the City does not accept these adjustments as described above and in prior correspondence dated January 14, 2020 (OTT-RTG-LET-0298 and OTT-RTG-LET-0299).



Under the Project Agreement, RTG is not entitled to any remedy for this Default as Section 45.4 of the Project Agreement specifically omits Sections 45.1(a)(x) to (xii). However, the City is prepared to allow RTG a reasonable period of time to remedy this Default, as with the other Defaults, as described below.

2) Unavailability of the System

Pursuant to s. 45.1(a)(v), RTG has breached its obligations under the Project Agreement to provide sufficient Vehicles to meet the required service levels and to rectify issues with the Vehicles and/or System.

Contrary to Section 9.2(a)(ii) of the Project Agreement, RTG has failed to perform all activities within the Project Scope so as to satisfy the Output Specifications,² in accordance with Good Industry Practice (Works) and in accordance with the terms of the Project Agreement. As well, RTG has breached its obligations under the Project Agreement including in relation to Sections 20.1(a) and (b), 20.2, 20.8, 20.9 and 28.5.

Since the commencement of revenue service, as detailed in the City's remedial rights letters dated December 18, 2019 (OTT-RTG-LET-0293) and January 9, 2020 (OTT-RTG-LET-0532), RTG has repeatedly failed to provide sufficient Vehicles in order to ensure that service levels are provided in accordance with the Project Agreement. Furthermore, RTG has repeatedly failed to rectify ongoing problems with the Vehicles and/or issues arising in relation to the System in a timely or meaningful way. It is unacceptable for RTG to continue to place commercial internal disputes among various partners and suppliers before its obligations under the Project Agreement.

RTG's breaches of its obligation under the Project Agreement relate not only to the performance of the Maintenance Services, but also to RTG's performance of the Design and Construction Works.

RTG's failures during the Maintenance Term have resulted and are expected to continue to result in materially adverse effect on the availability of the System to the System Users.

In fact, as noted in our letter of January 9, 2020 (OTT-RTG-RLET-0532), in November alone there was a late Vehicle launch on ten separate occasions and in that same month the City had to initiate replacement bus service on seven separate occasions. Significant and troubling issues have continued to affect System availability and service. We have not seen any improvements in service and in fact service appears to have deteriorated further since the end of 2019. The following are a few specific examples which demonstrate how poor the current service delivery has become:

² In relation to the Output Specifications requirements, and by way of example only, see Schedule 15-2 (e.g. Schedule 15-2, Part 4 – Design and Construction Requirements – Vehicles and Systems), and Schedule 15-3 (Maintenance and Rehabilitation Requirements).



- For 25 consecutive weekday rush hour periods between January 16, 2020 and February 03, 2020, RTG failed to deliver the required number of trains at peak service and was only able to provide between eight (8) and twelve (12) trains. The average number of trains provided during this critical period of our service was just over 10 trains (against a requirement of 13 trains); and,
- Subsequent to the performance at the end of January, RTG failed to provide the required number of trains on February 7, 10, 14, 17, 18, 19, 20, 21, 24, 26, 27, and 28. The level of service delivery from RTG is so inconsistent that OC Transpo has had to introduce a new S1 service to accommodate customers.

In addition to the continuing and persistent failure to deliver the correct number of Vehicles during peak weekday service, RTG's lack of standard or effective maintenance practices appears to be increasingly affecting the service. Recent concerns regarding maintenance practices include the following, by way of example:

- On February 14, 2020, vehicle parts came loose while in service which damaged transponders on the western end of the alignment and caused service interruptions;
- On February 20, 2020, RTG operated a reduced fleet of Vehicles apparently as a result of brake faults although there was also a fire reported inside the Maintenance Storage Facility the previous evening;
- On February 22, 2020, there were three separate Vehicle failure incidents that caused delays to System Users while RTG attempted to address the issues;
- On February 26, 2020, a failure of the overhead catenary system caused the catenary wire to drop. This event required passengers of two stopped trains to be evacuated and the System suffered significant delays while passengers were forced onto support buses. This issue continues to be a known failure mode on the system to which, it appears, RTG has not corrected;
- Despite a relatively mild winter, cold temperatures required the addition of supplementary heat to the vehicle driver cabs and the switch heater performance has required the addition of significant resources to the field;
- Material availability and spare parts appears to be hampering RTG's ability to deliver the
 required number of trains. This issue is particularly concerning because the parts
 availability appears relate to both complex part failures (inductors and CVS units) as well
 as common parts such as smoke detectors; and
- Despite having made assurances regarding the preparedness of the maintenance team for service, standard practices such as electrical lockout procedures for vehicle roof maintenance and/or the equipment to support such practices are still being updated and other critical items such as wheel lathe operation and maintenance have not been put in place.

The City's confidence in RTG's ability to deliver the Maintenance Services has been eroded. The list above is not exhaustive and there are ongoing concerns with a number of other areas including Vehicle brake system performance, vehicle sander and vehicle sand selection, and correct operation of the guideway intrusion detection system during winter events, just to name a few.



Given these conditions, among others, the City is concerned about RTG's ability and capacity to plan and prepare for issues that will require attention during spring/summer (ultrasonic testing, continuously welded rail issues during high temperatures, vehicle HVAC performance, etc.) and is further concerned that there are other maintenance issues that are being ignored or overlooked as they have not manifested themselves with service impacts as of yet.

These failures have in no way been a consequence of a breach by the City of its obligations under the Project Agreement. Accordingly, a Default has occurred.

RTG has not lived up to its obligations to design, construct and maintain a highly reliable transit system. RTG is required to remedy these breaches, pursuant to Section 45.1(a)(v)(A), by immediately commencing and diligently continuing to remedy its breaches, mitigating any adverse effects on the availability of the System to System Users, providing a reasonable plan and schedule for remedying the breach within 5 Business Days of receiving notice, and performing its obligations to achieve its plan and schedule within the time for the performance of its obligations under that plan and schedule.

3) Misrepresentation

Pursuant to s. 45.1(a)(iv), a Default occurs in circumstances where RTG has made a representation or warranty under the Project Agreement that was false or misleading when it was made and that, among other things, has or will have a material adverse effect on the availability of the System to System Users, or that may compromise the City's reputation or integrity or the nature of the City or the Project.

Pursuant to s. 5.1(a)(iv) RTG represented that it had extensive experience and was knowledgeable in relation to the maintenance of LRT projects and that it possessed the requisite skill and capacity to perform the activities within the Project Scope in a timely and professional manner as set out in the Project Agreement.

Revenue Service Availability was to be achieved by May 24, 2018 pursuant to the Project Agreement. It was not achieved until August 30, 2019, over a year late. When, in August 2019, RTG insisted that it had achieved Revenue Service Availability, it represented that the System as a whole was ready to meet the reliability standards set out in the Project Agreement. Clearly it was not.

Based on the well documented inability of RTG to meet the reliability thresholds in the Project Agreement, the City has been deprived of the result it contracted to obtain. It is clear to the City that RTG materially misrepresented its experience, knowledge, skill and capacity under Section 5.1(a)(iv) of the Project Agreement. As a result, and as described to RTG in the City's remedial rights letters, the availability of the System to System Users and the reputation of the City and Project have been compromised (see, for example, the remedial rights letters on December 18, 2019, January 9, 2020 and January 24, 2020). The City's January 24, 2020 letter (OTT-RTG-LET-0294) specifically references the compromise to the City's reputation and negative public perception of the City and the Project.



Following receipt of the remedial rights letters, including its letter of January 24, 2020 (OTT-RTG-LET-0294), RTG has failed to make any measurable improvements in the performance of the Maintenance Services.

Pursuant to Section 45.4 of the Project Agreement, RTG is required to provide, within 5 Business Days, a reasonable plan and schedule to diligently remedy, in the event that RTG is capable of remedying, this Default. The plan and schedule are to specify, in reasonable detail, the manner in, and the latest date by which, the Defaults are proposed to be remedied.

Plan and Schedule to Remedy Defaults

Given the nature and extent of the Defaults described above and given the City's desire that RTG create a detailed and achievable plan and schedule that addresses RTG's collective failures and breaches of its obligations under the Project Agreement, the City is prepared to provide RTG until March 31, 2020 to deliver its plan and schedule to remedy all of its Defaults as described herein. The City will then evaluate that plan and schedule and consider its next steps.

As well, pursuant to Section 45.6 the City puts RTG on notice that the City will require RTG to reimburse the City for all reasonable costs (including all legal and professional fees) properly incurred by the City in exercising its rights under Section 45. The City will take commercially reasonable steps to mitigate such costs.

The City reserves all of its rights under the Project Agreement and at law.

Yours Truly,

Michael Morgan

Director, Rail Construction Program

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Lorne Gray, OTC Troy Charter, OCT