

PART 9 DESIGN AND CONSTRUCTION REQUIREMENTS – EXISTING FLEET 1

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**SCHEDULE 15-2
DESIGN AND CONSTRUCTION**

**PART 9
DESIGN AND CONSTRUCTION REQUIREMENTS – EXISTING FLEET**

ARTICLE 1 INTRODUCTION

1.1 Scope of Work

- (a) Project Co shall perform the following Works on the Existing Vehicle Fleet during the Shutdown Period:
- (i) All stand-still maintenance as well as scheduled overhaul maintenance. The Existing Vehicle Fleet is scheduled for an 8-year overhaul including a powerpack and transmission overhaul, and Project Co may need substantial lead time to procure necessary spare parts to perform these overhauls.
 - (ii) Project Co shall design and construct all equipment needed for wireless communication between Revenue Vehicles and the TOCC.
 - (iii) A Security Alarm System shall be provided in accordance with Clause 1.24(b)(xvii) of Schedule 15-2, Part 8 – Vehicles.
 - (iv) Provide onboard CCTV cameras, NVR, and cab video display per all requirements in Clauses 1.24(b)(xviii), 1.24b(xix), and 1.24(b)(xx) of Schedule 15-2, Part 8 – Vehicles.
 - (v) Retrofit S&TCS as required, in accordance with Schedule 15-2, Part 3 – Systems.
 - (vi) Paint the interior handhold and stanchions per the requirements of Clause 1.25(a)(ii)B of Schedule 15-2, Part 8 - Vehicles.
 - (vii) Retrofit with Voice and Data Radio System, per the requirements of Clause 5.4(a) of Schedule 15-2, Part 3 - Systems.
 - (viii) Modify the event recorder per the requirements of Clause 1.28(c) of Schedule 15-2, Part 8 - Vehicles.
 - (ix) Modify the announcement signs so that all Station stops are properly displayed on the Existing Vehicle Fleet.
 - (x) Modify the threshold extender to provide level boarding with a Platform height of 574mm with a maximum horizontal gap of 75mm. Level boarding shall be defined as Revenue Vehicle threshold height at $\pm 16\text{mm}$ from Platform height for all wheel diameters and Passenger loading, up to and including AW1, with standing Passengers at $3.3/\text{m}^2$
 - A. Project Co shall provide a description of the method used to address wheel wear and the expected time required to perform the task.

- (xi) Any other works that Project Co deem necessary to ensure the Existing Vehicle Fleet meets the requirements of the Project Agreement for Readiness for Revenue Service.
- (xii) Testing, as applicable and Trial Running shall be performed in accordance with Schedule 14 – Testing and Commissioning. Test requirements, as applicable, are contained within Schedule 15-2, Part 8, Clause 1.32.
- (xiii) Operator Training shall be performed in accordance with Schedule 15.2, Part 1, Article 12 – Operations Training.

1.2 Access to Existing Walkley Yard

- (a) Project Co will be allowed access to certain areas within the Existing Walkley Yard upon commencement of the Shutdown Period for the sole purpose of performing Works on the Revenue Vehicles. Refer to Schedule 33 – Lands for further details.

1.3 System Safety and Security Certification

- (a) Project Co shall prepare a complete assessment of risk following the requirements in Schedule 15-2, Part 1, Article 7 – System Safety Certification, using the CENELEC standards and shall form part of Project Co's Safety Case to the City. Any statements as to the Safety Hazards associated with the proposed equipment shall be substantiated by means of a risk assessment, including identification of Safety issues and measures proposed to control and mitigate the risks.
- (b) Project Co shall prepare an SSAP that encompasses system RAM in accordance with the requirements of Schedule 15-2, Part 1, Clause 7.8. The RAM requirements shall apply to all of the System.

1.4 Rail Regulatory Obligations

- (a) Project Co shall be responsible for providing Existing Vehicle Fleet information to support regulatory filings by the City including all relevant technical, operations, Maintenance, and supporting documentation, in accordance with the requirements of Schedule 15-2, Part 1, Article 6 – Rail Regulatory Structure and Obligations.
 - (i) Project Co shall prepare a compliance package to assist the City in demonstrating to Transport Canada, with verifiable documentation, that the modified/new equipment meets all applicable legislation, regulation, rules and standards under the Railway Safety Act including a standards compliance verification matrix demonstrating how the Existing Vehicle Fleet complies with APTA standards directly. Where compliance to the APTA standards are demonstrated through equivalent standards, Project Co shall thoroughly document how equivalency is achieved.
 - (ii) Project Co shall prepare a complete assessment of risk for the City to share with Transport Canada.