

Massachusetts Bay Transportation Authority

Amendment to Professional Services Contract: Evaluation of MBTA's Light Rail Vehicles

Fiscal and Management Control Board

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January 25, 2021

Overview

Today's Board action will provide authorization to amend MBTA Contract No. X29PS01 with LTK Engineering Services to continue support of the Green Line Type 8 Light Rail Vehicle Evaluation and Reliability Improvement Program.

- Program Overview and History
- Program Benefits
- Professional Service Scope of Work
- Request of the Fiscal and Management Control Board



Program Overview and History

- Type 8 Vehicle - Data Driven Reliability Improvement Program began in 2012, focusing on immediate and long-term solutions to increase the fleet's overall service and component reliability.
- Due to budget limitations, the program was split into three phases:
 - Phase 1 – Immediate Improvements (COMPLETE)
 - Phase 2 – Scheduled Reliability Programs
 - Phase 3 – Data Driven Reliability Improvements



Program Overview and History

- **Phase 1 – Immediate Improvements**

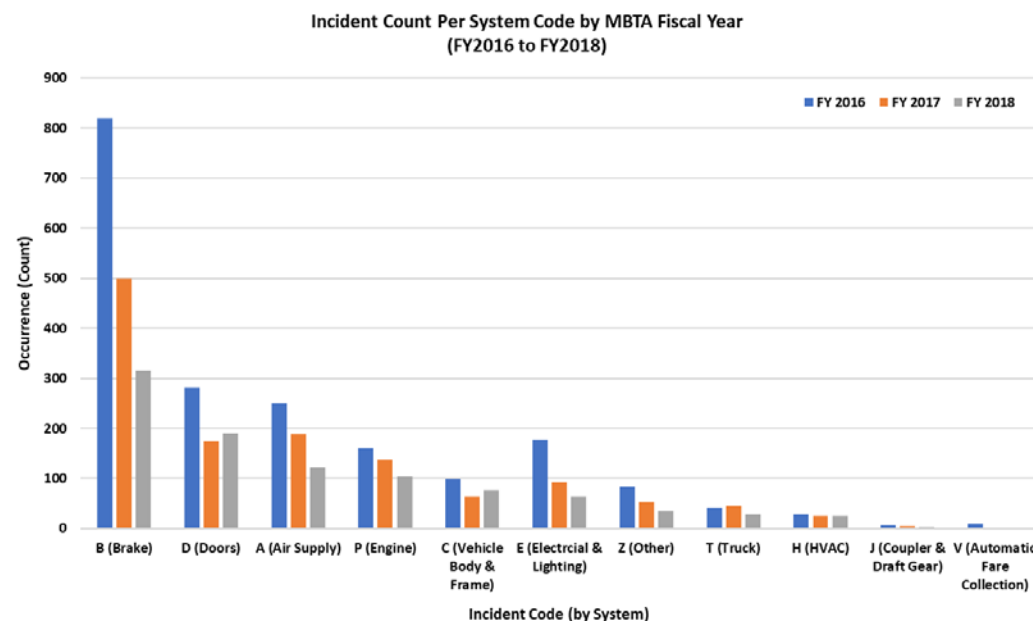
- End-of-life component replacements
 - Batteries, critical truck components
- High failure system improvements
 - Center Truck Hydraulic Pressure Control Unit (HPCU) Relocation

- **Phase 2 – Scheduled Reliability Programs**

- Long-term, State of Good Repair overhaul programs
 - Trucks, couplers, brake system, auxiliary power supplies
- End-of-life equipment and component replacement
 - Brake system bench tester, destination signs

- **Phase 3 – Data Driven Reliability Improvements**

- Brake system improvement
- Air system and compressor overhaul
- Door system tune-up
- Least-reliable car tune-up program + maintenance improvements



Professional Services Scope of Work

- MBTA engineering staff is insufficient to support a program of this magnitude, and continued services are needed due to vendor delays.
- Type 8 Vehicle Evaluation and Reliability program is very complex and requires engineering expertise that LTK Engineering Services possesses.
 - Vendor Management and Oversight
 - Vendor Site Quality Assurance and Control
 - Management and Coordination Support
 - Warranty Administration and Follow-up Technical Support
- LTK Engineering Services will be supporting the following major programs:
 - Truck Overhaul
 - Coupler Overhaul
 - Brake System Overhaul and Bench Tester Procurement
 - APS Overhaul
- Amendment No. 2 duration will be 36 months.
- LTK will subcontract with VP Engineering, Inc. (DBE) with the following breakdown:
 - LTK: \$1,869,715.81 (90%)
 - VPE (DBE): \$210,863.13 (10%)



Proposed Vote

VOTED: That the General Manager, or his designee, be, and hereby is, authorized to execute, in the name and on behalf of the Massachusetts Bay Transportation Authority, and in a form approved by the General Counsel, Amendment No. 2 to MBTA Contract No. X29PS01 with LTK Engineering Services in an amount not to exceed \$2,080,578.04.

