



Board Report

File #: 2020-0104, File Type: Contract

Agenda Number: 16.

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE MARCH 19, 2020

SUBJECT: A650 FLEET FRICTION BRAKE SYSTEM

ACTIONS: APPROVE CONTRACT MODIFICATION

RECOMMENDATIONS

AUTHORIZE the CEO to:

- A. EXECUTE Modification No. 5 to exercise Option No. 2 to Contract No. MA6274900 with Wabtec Passenger Transit (Wabtec) for overhaul of Hydraulic Pneumatic Tread (HPT) Brake Actuator for a not-to-exceed amount of \$998,400 increasing the Contract Total not-to-exceed value from \$1,859,000 to \$2,857,400; and,
- B. APPROVE Contract Modification No. 5 to add overhaul services for D-4-S Air Compressor Assembly Units to Wabtec's Contract No. MA6274900 for a not-to-exceed amount \$723,892. The total contract not-to-exceed amount is increased from \$2,857,400 to \$3,581,292.

ISSUE

The D-4-S Air Compressor Assembly is an essential subsystem component that must be included in the overall A650 Friction Brake System Overhaul concurrent with the HPT Brake Actuator. The Air Compressor and HPT Actuator Assembly overhauls are required to be accomplished in parallel with the ongoing A650 Friction Brake Equipment overhaul services thereby ensuring the overhauls are performed in accordance with regulatory standards.

The A650 Subway Fleet Air Compressor and HPT Brake Actuator Assemblies are components within the Friction Brake System. These overhauls were not included in the original contract awarded to Wabtec in January 2017 but are requested now to accomplish a thorough Friction Brake System overhaul to achieve equipment reliability and performance in accordance with regulatory standards.

BACKGROUND

Contract No. MA6274900 was approved by the Board in January 2017, awarding Wabtec, the Original Equipment Manufacturer (OEM), the A650 Friction Brake Systems overhaul base services and HPT Brake Actuator. D-4-S Air Compressor Unit Assemblies was a part of the original Request for Proposal and evaluated by Metro staff. However, Option 1 was excluded from the Board Report

January 2017.

Contract No. MA6274900 was approved by the Board in January 2017, awarding Wabtec, the Original Equipment Manufacturer (OEM), overhaul of the Friction Brake Systems base services including the HPT Brake Actuators, option 2, was not exercised at contract award due to RFS Management decision to perform these overhauls on as-needed basis. The Air Compressor overhaul was not included in the original contract as the Rail Fleet Staff decided to perform a “partial” overhaul replacing limited parts as a cost savings measure; however, this approach was with marginal success with downgraded performance and reliability. This overhaul will include upgraded components e.g. pistons and air dryer equipment.

DISCUSSION

The A650 Subway Fleet consists of 102 rail cars (51 married pairs) in its 24th year of revenue service operations with over 1.5 million miles per rail car. The Friction Brake overhaul is scheduled on a four-year overhaul cycle to ensure the fleet remains in a constant State of Good Repair (SGR) while safeguarding passenger safety and service reliability.

The Friction Brake System Overhaul consists of tear down, inspection, and replacement of safety sensitive components e.g. brake calipers, actuators, brake valves, transducers, numerous valves, relays including Air Compressor and HPT Tread Brake Actuators. Wear and tear of these component are predictable therefore necessitating periodic overhauls accomplished by the OEM with specialized equipment and mechanic certifications to ensure equipment reliably.

The Friction Brake Overhaul is (1 of 8) vehicle systems within the Component Overhaul Program managed and performed by Rail Fleet Services staff. Other vehicle systems undergoing overhaul include coupler, low voltage power supply, gearbox, traction motor, and semi-permanent coupler.

Rail Fleet Services (RFS) Engineering developed equipment overhaul specification(s) for all systems included in the Component Overhaul Program based upon the OEM recommendations and with RFS maintenance experience. The OEM contractor will perform overhaul services in accordance with a defined schedule within Metro’s technical specifications requirements.

DETERMINATION OF SAFETY IMPACT

Safety is of the utmost importance to Metro and, therefore, it is imperative to maintain the A650 fleet without deferred maintenance and in a constant SGR. The Air Compressor and HPT Actuator Assembly overhaul will be accomplished in parallel with the ongoing Friction Brake Equipment overhaul thereby ensuring the overhauls are performed in accordance with regulatory standards, within defined schedule while following Metro’s Corporate Safety policy and procedures.

FINANCIAL IMPACT

The total contract amount is \$3,581,292. Funding of \$100,000 for this procurement is included in the FY20 budget in cost center 3942, Rail Fleet Services Maintenance Red Line, under Capital Project number 206045, Red Line Vehicle Component Overhauls, line item 50441, Parts - Revenue Vehicle.

This procurement is part of the on-going Red Line Vehicle preventive maintenance program.

Since this is a multi-year contract, the cost center Manager, Project Manager, and Sr. Executive Officer will ensure that the balance of funds are budgeted in future fiscal years.

Impact to Budget

The current source of funds for this action is Prop A 35% Rail. Using this funding source maximizes the project funding allocations allowed by approved provisions and guidelines...Implementation_of_Strategic_Plan_Goals

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Approval of this recommendation supports the following Metro Strategic Plan Goal 2) Deliver outstanding trip experience for all users of the transportation system.

ALTERNATIVES CONSIDERED

Deferral of this overhaul work is not recommended as these Friction Brake Systems are integral components of the vehicle braking and pneumatic systems that if not properly maintained could result in equipment failures, service delays, and risk to passenger safety.

NEXT STEPS

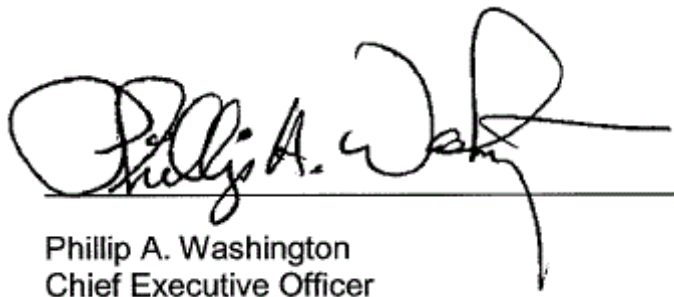
Overhaul the Friction Brake Systems including Air Compressor Assembly and HPT Thread Brake Units in accordance with Rail Fleet Services' maintenance schedule requirements. If approved, the project is scheduled to commence in May 2020.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - Contract Modification Change Log

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