

**Board Report**

File #: 2016-0171, **File Type:** Contract**Agenda Number:** 29

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
MAY 19, 2016****SUBJECT: GAS DETECTION ANALYZER SYSTEM****ACTION: AWARD CONTRACT****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to award contract No. PS21904205074 to **Reliable Monitoring Systems (RMS)**, in the amount of **\$1,159,860**, to provide a **Gas Detection System (GDS)** for **Metro Red Line (MRL)** and **Metro Gold Line (MGL)**.

ISSUE

In order to ensure the safety of our passengers and staff in the underground stations and right-of-way, a complete replacement of the Gas Detection System equipment is required. This procurement is for the parts and installation of the new system.

Metro rail underground stations are equipped with gas detection equipment. The gas detection devices were installed throughout the stations and cross passages. In the event that harmful gases are present, an alarm is triggered at the Rail Operations Control (ROC). Staff is immediately dispatched to assess and mitigate the issue. The current GDS devices were installed throughout the MRL in 2002 and underground MGL stations in 2003. In addition, the GDS' main controller interface boards and peripheral equipment are obsolete, and replacement parts are difficult and expensive to obtain.

DISCUSSION

The new GDS will replace and upgrade the current MRL and MGL equipment. This new microprocessor-based system performs functions including management of sensor modules, alarm relays, and interface with front panel display. The current equipment requires a labor-intensive system calibration every three months.

New GDS equipment has an original equipment manufacturer recommendation of bi-annual calibration resulting in operating cost savings by reducing the labor cost by half. This system will improve the speed of data information communications and accuracy of incident response time. Also, the system will be connected to the Supervisory Control and Data Acquisition (SCADA) system.

The contractor shall provide the work covered by the proposed specifications including engineering

services, which incorporates system audit and analysis. Following the award of the contract, the contractor will install the equipment within a year and a half. Installation requires replacing all sensors, control boards, power supplies, and data lines as necessary.

DETERMINATION OF SAFETY IMPACT

The Gas Detection System will provide additional safety features such as faster response time to incidents in the tunnel. The current response time is 5 to 10 seconds; the new response time will be improved to 2 to 5 seconds. The new system will report incident via Emergency Maintenance Panel, Fire Control Panel, Rail Operations Control, and SCADA interface module, utilizing the Remote Terminal Unit and Programmable Logic Units modules for immediate alarm recognition. A safe and reliable system is the key advantage to this new Gas Detection digital system.

FINANCIAL IMPACT

The funding of \$1,159,860 is included in the Life of Project budget 205074 - Gas Analyzer Upgrade in cost center 3960.

Since this is a multi-year contract, the cost center manager, project managers, and Executive Director, Maintenance will ensure that the balance of funds is budgeted in future years.

Impact to Budget

The source of funding for this contract comes from Prop A 35%, which is eligible for bus and rail Operating and Capital Projects. No other funds were considered or eligible for this activity.

ALTERNATIVES CONSIDERED

The alternative is to not award a contract for the GDS. However, based on the potential impact on Public Safety, this option is not recommended. The GDS provides a security measure to Metro Rail ridership. Metro demonstrates its commitment to putting Public Safety as a priority through the installation of this new system.

NEXT STEPS

After approval of the Board, staff will execute Contract No. PS21904205074 with Reliable Monitoring Systems to provide GDS services for Metro Red Line and Gold Line.

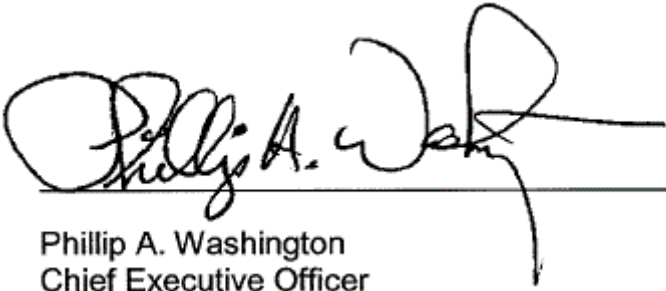
ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary

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