

**Washington Metropolitan Area Transportation Authority
Board Action/Information Summary**

<input checked="" type="checkbox"/> Action <input type="checkbox"/> Information	MEAD Number: 99686	Resolution: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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PURPOSE

To authorize a contract modification with ARINC for contract FN4086 to enhance the Fiber Optic System (FOS). This enhancement will provide an Internet Protocol (IP) transport network that is vital to the support of Rail, Bus and MTPD maintenance and operations and that is isolated, secure, and resilient. This transport provides fast and reliable communications between OCC and the field devices throughout the Metrorail system. The new equipment will enable us to use the existing fibers and minimize any additional fiber requirement.

DESCRIPTION

WMATA commissioned a communications architecture study to guide our selection and deployment of communications systems. This study recommended a separate IP Network for operationally sensitive data. The concept Carrier Transmission System (CTS) network was designed around the concept that control and information flow was to be centralized at JGB. This model is no longer appropriate for long-term application. The new network concept is a different long-term model for information and control. This is required for migrating from the JGB to the Carmen Turner Facility (CTF) OCC and for providing support for future additional OCC spaces.

The existing CTS/FOS equipment does not include an IP transport network suitable for vital application that connects multiple field devices with WMATA's Central Control centers (JGB and CTF). This modification is the most effective way to implement the vital network. The modification will provide needed additional equipment in the communication rooms. This concept will share the existing FOS fibers and there is no cost that would be associated with adding new fibers on the right-of-way.

The new infrastructure system will enhance security of critical applications including; Train Control Signaling, Fire Alarm System, Passenger Information Display System, Rail Passenger Station Public Address System, the Telephone System, and Radio systems. The current CTS equipment mandates compatibility. Therefore, for the purchase of new IP infrastructure equipment, it is critical that we modify contract FN4086. Since the

existing FOS/CTS contract scope overlaps this work, it is advantageous to modify contract FN4086

FUNDING IMPACT

Funding is provided in the Infrastructure Renewal Program Fiscal 2007-2010, ATC & Power Systems Replacement, in the amount of \$2,800,000.

RECOMMENDATION

Subject to Audit approval and COUN review of the modification package to authorize a contract modification with ARINC for contract FN4086 to enhance the Fiber Optic System (FOS). This enhancement will provide an IP transport network that is vital to the support of Rail, Bus and MTPD, maintenance and operations and that is isolated, secure, and resilient.