



## ARLINGTON COUNTY, VIRGINIA

**County Board Agenda Item  
Meeting of January 22, 2011**

**DATE:** December 27, 2010

**SUBJECT:** Award of Contract to Chesapeake Electrical Systems Inc. for construction of the Phase One Fiber Optic Network Project.

**C. M. RECOMMENDATION:**

1. Approve award of Contract Number 470-09 to Chesapeake Electrical Systems, Inc. in the amount of \$3,963,476.09.
2. Approve an additional allocation of \$705,617.13 for contingencies, engineering and inspection, for a total contract amount authorization of \$4,669,093.22.
3. Authorize the Purchasing Agent to execute the contract documents, subject to approval by the County Attorney.

**ISSUES:** The County Board approval is required for contract award to Chesapeake Electrical Systems, Inc. for construction of the Phase One Fiber Optic Network. There are no outstanding issues.

**SUMMARY:** In Phase One Fiber Optic Network Project, approximately six miles of fiber optic cabling will interconnect with 54 traffic signals. As a part of the project, two separate 144 strand fiber optic cables will be installed; one each for Intelligent Transportation System (ITS) and Common Network (C-Net) applications. This fiber optic cabling will form the backbone of the County's communication network that will supplement and eventually replace its existing twisted pair (copper) and leased Comcast network.

**BACKGROUND:** The County has planned to upgrade its existing "ITS Management & C-Net Plant" to a state-of-the-art fiber optic technology in three phases. The overall project consists of replacing the existing 52 miles of outdated and unreliable twisted pair (copper) communication system with a more reliable, faster and scalable fiber optic system.

County Manager:

County Attorney:

Staff: Amit Sidhaye, Department of Environmental Services

The total estimated cost of the project (all three phases) is approximately \$20M. The County has been able to secure \$10M to date in various federal grant funds. These funds can only be used towards the ITS portion of the project. The C-Net portion of the fiber optic cables will be funded from existing local County sources.

Upon implementation, the project will help Arlington County to upgrade its existing aging “ITS Management and Communication” system. The existing communication system built in early 1980’s, is nearing the end of its useful life. Due to an increased number of failures, the system has become unreliable and uneconomical to maintain. It also lacks the speed and capacity to meet our present and future communication needs. Given these conditions, it is necessary to replace the copper system with a state-of-the art fiber optic system. The new system will not only help the County maintain our existing traffic signals operation at peak performance, but will also give the County enormous capability for future expansion as new technologies in ITS management and communications became available. It will also provide better communication to select County facilities and will help Public Safety agencies monitor special events and reduce response time to incidents.

This contract provides for the construction of the first phase of the project consisting of approximately six miles of fiber optic communication network along Clarendon/Wilson Boulevard, Glebe Road, and Columbia Pike (map attached). The project consists of two 144 strand fiber cables; one each dedicated to ITS and C-Net.

**DISCUSSION:** The Purchasing Agent received the following bids on 5<sup>th</sup> August, 2010 at 3:00 PM.

<u>Bidders</u>	<u>Bid Amount</u>
1. Chesapeake Electrical Systems Inc.	\$ 3,963,476.09
2. Fort Myer Construction Corporation	\$ 5,609,875.57
3. Midasco Inc.	\$ 5,889,000.00
4. Down Under Construction	\$ 4,658,646.00

The lowest bidder, Chesapeake Electrical Systems, Inc., was found to be a responsible bidder, and the bid submitted was responsive to the invitation to Bid Number 470-09. It is recommended that the contract be awarded to Chesapeake Electrical Systems, Inc.

Additional funds of \$705,613.13 will be needed to cover contingencies, engineering and inspection costs. Therefore, the total recommended contract authorization is \$4,669,093.22.

**FISCAL IMPACT:** The total estimated cost for the County to administer this phase of the overall project is \$4,669,093.22. Sufficient funds are available in following accounts;

1. \$4,534,321.42 in federal grant funds for the ITS portion of the project are available in Account 313.43514.T99S.ARRA.0000 and 313.43514.T99S.319.0000. These expenses will be fully reimbursed to the County by VDOT and the revenue will be appropriated when received.

- \$134,771.80 in County funds for the C-Net portion of the project is available in Account 546.91205.FIBR.0000.

Phase 1 - Fiber

