

City of Culver City, California
City Council Agenda Item Report

Date: 7/16/07		Item Number: A-6	
AGENDA ITEM: 1) Approval of Final Plans and Specifications and Authorize Advertising for Bids for Mutual Video Sharing and Migration of Traffic Signals Data Transmission from Twisted Pair Copper to Fiber Optics Components of the Fox Hills Traffic Signal Synchronization Project; and 2) Approval of an Amendment to an Existing Professional Services Agreement with Katz, Okitsu & Associates (KOA) for Design Services to Guide the Traffic Signal Interconnect Certification Process of said Project.			
Contact Person/Dept.: Elaine Jeng/PW		Phone Number: (310) 253-5621	
Fiscal Impact: Yes ☒ No ☐		General Fund: Yes ☒ No ☐	
Public Hearing: ☐		Action Item: ☒ Attachments: ☒	
Public Notification: Master Notification List on July 11, 2007.			
Department Head Approval: Charles D. Herbertson (06/20/07)		City Attorney Approval: Carol Schwab (by H. Iker) (07/10/07)	
City Controller Approval: Marlee Chang (07/11/07)		City Manager Approval: Jerry B. Fulwood (07/11/07)	
<u>RECOMMENDATION:</u> Staff recommends the City Council: 1. Approve the final plans and specifications and authorize the advertising of bids for one component of the Fox Hills Traffic Signal Synchronization Project (Fox Hills Project): the mutual video sharing and migration of traffic signal data transmission from twisted pair copper wires to fiber optics. 2. Approve an amendment to an existing professional services agreement with Katz, Okitsu & Associates (KOA)'s for design services to guide the traffic signal interconnect certification process of said Project in an amount not-to-exceed \$12,500. <u>BACKGROUND:</u> Staff submitted an application to the Los Angeles County Metropolitan Transportation Authority (Metro) 2001 Call for Projects program for the interconnect and upgrade of 12 signalized intersections in the Fox Hills neighborhood and the evaluation and installation of a citywide automated traffic signal control and monitoring project system. The application proposed three components of work. The first component is to upgrade 12 traffic signals within the Fox Hills area to connect to the Los Angeles			

City of Culver City, California
City Council Agenda Item Report

Department of Transportation (LADOT) automated traffic surveillance and control (ATSAC) center. Previously, the Jefferson and Sepulveda Gap Closure projects bridged approximately 29 other traffic signals to LADOT's traffic control center. The traffic signals within the Fox Hill areas are the last signalized locations within the City that are not connected to LADOT ATSAC Center. Currently, traffic signals data are transmitted to LADOT via dedicated City owned underground copper wires from City Hall. The existing 50 twisted pair copper wire from City Hall to the LADOT hub at the Los Angeles Fire Station 68, located approximately 5 miles east of City Hall is at full capacity. The lack of capacity in the existing copper wire prevents the City from transmitting additional traffic signal data to LADOT ATSAC center.

The second component of the Fox Hills project is to switch the data transmission from copper wire to the City's existing fiber optic traffic signal network, installed as part of a prior Metro Traffic Signal upgrade project, between City Hall and LADOT hub. The existing network is comprised of 24 strands of fiber optic lines that offer the capacity to transmit data for more than 1,000 traffic signals or a combination of video and traffic signal data.

The third component of the project is to acquire a citywide traffic control system. This in turn requires a working traffic signal interconnect infrastructure. (Interconnect is the communication line between traffic signals.) To ensure that the existing traffic signal interconnect infrastructure is operating properly and to make corrections as needed, it is necessary to perform a certification process on the interconnect system.

The Memorandum of Understanding (MOU) between the City and Metro was fully executed in March 2006. KOA, in association with Transcore, were awarded a contract as approved by the City Council in October 2006 to provide the design and preparation of the plans and specifications to the first two components of the project.

DISCUSSION:

KOA completed the design and preparation of the plans and specifications for the two components of the Fox Hills project. The first two components of work require different sets of contractor expertise. Thus, each component will be advertised for construction bids separately. This report recommends to the City Council that the second component of the project's plans and specifications for the mutual video sharing and migration of traffic signals data transmission from copper to fiber optic be approved and advertised for construction bids.

As previously mentioned in the background section, the third component of the project requires a sufficient traffic signal interconnect infrastructure. This need was

City of Culver City, California
City Council Agenda Item Report

discussed with KOA as the City prepared to embark on the implementation phase of the third component. KOA recommended to staff that the contractors appropriate to perform the traffic signal upgrades would also be candidates to perform the City's existing interconnect certification. As such, staff and the consultant decided to combine the interconnect certification with the traffic signal upgrade to provide for more efficient project delivery and to expand the scope of work to entice more bidders.

Staff reviewed KOA's proposal to provide design services to guide the interconnect certification process and recommends that City Council approve a change order for \$12,500 to include the interconnect work as part of KOA's existing contract with the City.

KOA will require about 7 weeks to complete the preparation of the interconnect certification plans. KOA will combine the already completed traffic signal upgrades plans with the interconnect certification documents for a bid set. Staff will return to City Council for approval for advertisement of bid for the traffic signal upgrades (1st component) and interconnect certification in about 3 months.

FISCAL ANALYSIS:

There are sufficient funds in the adopted 2006/07 and 2007/08 Capital Improvement Budget (P-852, Fox Hills Traffic Signal) with reimbursable Metro (MTA) Grant funds and State Gas Tax funds to pay for the proposed additional professional contract amount.

ATTACHMENT:

- A. Mutual Video Sharing Analysis Report
- B. Migrate Traffic Signals from 50-pair TWP Copper to 24-SMFO Cable Report
- C. KOA Proposal for Additional Work

MOTION:

That the City Council:

- 1) Approve the plans and specifications for the Mutual Video Sharing and Migration of Traffic Signal Data Transmission from Copper Wires to Fiber Optics;

City of Culver City, California
City Council Agenda Item Report

- 2) Authorize advertising for bids the Mutual Video Sharing and Migration of Traffic Signal Data Transmission from Copper Wires to Fiber Optics;
- 3) Approve an amendment to the existing professional services agreement with Katz, Okitsu and Associates, in an amount not-to-exceed \$12,500, to provide signal interconnect plans and interconnect certification specifications as the fourth component of the Fox Hills Traffic Signal Synchronization Project;
- 4) Authorize the Public Works Director/City Engineer to approve a not-to-exceed amount of \$5,000 for KOA's assistance during the bidding and construction phase of the project; and
- 5) Authorize the City Attorney to prepare the appropriate amendment and authorize the City Manager to execute such amendment on behalf of the City.