City of Culver City, California
City Council Agenda Item Report

Meeting Date: 12/22/2008	Item Number: C-7
AGENDA ITEM: Approval of a Professional Services Agreement with Kimley-Horn Associates (KHA) for the Installation and Integration of the Citywide Traffic Control System (TCS) Component of Work for the Fox Hills Area Traffic Signal Synchronization Project, P-852	
Contact Person/Dept.: Elaine Jeng/PW, Max Paetzold/PW	Phone Number: 310-253-5621/ 310-253-5613
Fiscal Impact: Yes [X] No []	General Fund: Yes [X] No []
Public Hearing: [ ] Action Item: [X]	Attachments: [X]
Public Notification: Master E-Mail Notification List (12/17/08). Siemens, Transcore, GreenFactor, Kimley-Horn, and Western Pacific Signal notified on (October 23, 2008);	
Department Approval: Charles D. Herbertson (12/12/08)	City Attorney Approval: Carol Schwab (by H. Baker) (12/17/08)
Chief Financial Officer Approval: Jeff Muir (by N. Kimball)(12/17/08)	City Manager Approval: Jerry B. Fulwood (12/17/08)

RECOMMENDATION

Staff recommends the City Council:

- Approve a professional services agreement with Kimley-Horn Associates for an amount not-to-exceed $473,516 for Phase I, the installation and integration of a Citywide Traffic Control System (TCS); and

- Authorize the Inclusion of a provision in the professional services agreement for an amount not-to-exceed $100,000 for potential communication infrastructure fixes as Phase II of the project.

BACKGROUND

Staff submitted the Fox Hills Area Traffic Signal Synchronization Project during the Los Angeles County Metropolitan Authority (Metro) 2001 Call for Projects process. The application proposed multiple components of work which are comprised of upgrading 12 traffic signals within the Fox Hills area, switching existing traffic signal data transmission from copper wire interconnection to the City's existing fiber optic network, providing mutual video CCTV camera surveillance capability between Culver City and Los Angeles Department of Transportation (LADOT), certifying the City's existing traffic signal communication infrastructure and acquiring a citywide TCS. The project budget has a total $1,851,000 in funds plus an additional $185,100 of supplemental funds received in 2007, bringing the total project budget to $2,036,100.

Design of the components of work was completed by KOA Corporation in May 2007. The construction component of the project is being conducted by Dynalectric and the project close out process has commenced and acceptance of work is anticipated in late January 2009.

The final component of the project is the installation and integration of a citywide TCS.

DISCUSSION:

The City Council approved a contract with Iteris Inc. (Iteris), to provide expertise in traffic control system engineering. Iteris prepared a Request for Proposal (RFP) tailored to the City's traffic operation needs including a system wide functional checklist. This RFP was released on August 4, 2008. A mandatory pre-proposal meeting was held on August 25, 2008 and the RFP closing date was September 18, 2008. Five proposals were received from Siemens, Transcore, Western-Pacific Signals, GreenFactor LLC and Kimley-Horn Associates. An oral interview was conducted with each of the five proposers on Monday, September 29, 2008. Additional clarification on the proposal and information exchanged at the oral interviews was requested on October 6, 2008 and response was due on October 13, 2008. The recommended selection announcement was published on October 24, 2008 to all the proposers.

The Director of Public Works/City Engineer, the Engineering Services Manager, the Maintenance and Operations Manager, the City's traffic engineer consultant (Max Paetzold) and the project manager (Elaine Jeng) served on the evaluation and interview panel. The City recruited two outside members to serve on the evaluation and interview panel: Jane White from the County of Los Angeles, Public Works and Ramin Massoumi of Iteris Inc. Ms. White heads the County's Information Exchange Network (IEN) project. The IEN functions as the County's traffic control system, establishing a coordinated network for sharing information and control of various traffic control systems. Ms. White has experience in selecting a qualified firm for the installation and integration of a TCS as she functioned in this role for many other jurisdictions in Los Angeles County. Mr. Massoumi is the City's hired system engineer and has prepared and aided other jurisdictions in the selection of a TCS within the region as well as elsewhere in California. Ms. White and Mr. Massoumi's opinions were taken into consideration, however, the final selection was made by the collective staff.

Each of the proposals and firms were evaluated based on five major areas: (1) adherence to the City's specified system functionality; (2) available budget versus

project alternatives; (3) readiness of deployment versus needs for additional product development; (4) availability and adequacy in staffing; and (5) completeness of vendor's entire package (proposal, interview, clarification response).

Below are highlights of staff's evaluation of the received proposals and identifies components for or against selection. The official evaluation summary was provided to each of the vendors by request and they are attached to this staff report as Attachment 1.

Siemens

Siemens provided three alternatives. In the alternative that captures the City's selected option for implementation, Siemens presented the second lowest cost of all proposals received at $469,751. Staff had two concerns in regards to deploying the Siemens i2 system; lack of redundant technical staff and the need for additional software development. To deploy the Bi-Trans 233 firmware (software running local field traffic controllers), Siemens will need to work with McCain, the Bi-Trans 233 firmware developer to transition from the City's current Bi-Trans 172.3 firmware to the Bi-Trans 233 firmware. In addition, Siemens will need to test i2 system's capability to communicate with field traffic controllers once the transition is complete. Siemens is current working on the transition in the City of Pasadena. However at press time (selection announcement), the City of Pasadena indicated that Siemens has yet to complete the software development for Bi-Trans 233.

Transcore

Transcore demonstrated the best understanding of the project needs, however, like Siemens, Transcore also needs to perform additional software development to deploy the Transuite system. Transcore's proposal provided the highest cost of all the proposals received at $635,260, but in this overall cost, Transcore's system provides added features such as the already developed interface to the Los Angeles County IEN. While this bonus feature would be a feature needed after the deployment of any system, the cost to implement this feature would be covered through the Los Angeles County Metropolitan Transportation Authority (Metro) 2009 Call for Project grant. The grant was applied through a joint effort with Los Angeles County and Culver City in 2007. Furthermore, staff inquired regarding Transuite's current reporting capabilities. Responses from Transcore indicated this important feature for the signal maintenance staff still required further development.

Western Pacific Signal

The Naztec system presented by Western Pacific Signal is best utilized by changing out all of the City's existing type 170 controllers to the more advanced Type 2070

controllers. To utilize the City's existing infrastructure, Western Pacific Signal presented the City with the implementation of an older firmware used by the California Department of Transportation (Caltrans). It did not make sense for the City to deploy an archaic firmware to run local traffic controllers and thus the Naztec system was eliminated without further consideration.

GreenFactor, LLC

Unlike Siemens, Transcore, Western Pacific Signals and Kimley-Horn Associates, GreenFactor did not develop a proprietary system. GreenFactor proposed to deploy the City of Los Angeles Department of Transportation (LADOT) Adaptive Traffic Control System (ATCS) for a total cost of $338,281, the lowest of all proposals received. One primary reason for the low cost is the City is currently participating in the LADOT ATSAC system. The current set up does not allow City staff to control City signals. Through this proposed deployment, GreenFactor will provide the City with a hub providing control and direct communication with the City's local controllers. Primarily the deployment would involve the set up and integration of the new hub with the City's field controllers. This is the least risky option from a system deployment and integration standpoint, however, GreenFactor is a relatively new company – formed in 1997. GreenFactor does not offer an extensive history nor does it offer adequate staff with redundant knowledge. Although GreenFactor is proposing to deploy the LADOT ATCS system, LADOT would not support the City during the deployment and or during the warranty period. The only support would be GreenFactor. With little history and scarcity of staff, it was determined that the City would be risking the success of deployment in the event GreenFactor ceased to exist or its limited staff was unavailable for unforeseen reasons.

Kimley-Horn Associates

Similar to Siemens and Transcore, Kimley-Horn Associates (KHA) proposed to utilize the Bi-Trans 233 firmware on the City's existing local traffic controllers. Unlike Transcore, and Siemens, KHA would not require additional software development to transition from the City's existing firmware to the newly proposed firmware. KHA has deployments in Miami and Tennessee that were already tested, integrated and proven the transition, thereby making the deployment of the KHA's system (KITS) the most efficient and least risky of all the proprietary systems. Furthermore, KHA's deployment would not require the change out of any of the existing controllers whereas Siemens and Transcore would require the switch out of the existing Type 170SC controllers to Type 170E controllers. The difference between the competitors and KHA is that KHA has a working relationship with McCain and through their history KHA has already developed a firmware protocol that works with all 170 type controllers giving them an edge in deployment schedule and minimizing the number

of tasks for integration. KHA's overall cost for deployment was initially quoted at $479,300, the third lowest of all received proposals.

Through the evaluation process, staff identified that the system functionality between Siemens, Transcore and KHA are very similar and they all met the needs of the City's traffic control and monitoring specifications. Staff also was provided systems by Siemens, Transcore and KHA for a period of 3 days to test the intuitiveness of each system. Each of the three proprietary systems aforementioned demonstrated similar intuitiveness. Each demonstrated strengths in some areas and weakness in other areas. Overall, however, staff would rate each system to be equal in user friendliness. Aside from the cost differences, staff placed importance on the deployment success so that the system can begin to alleviate maintenance tasks and identify travel improvements within the City. One area imperative to a successful deployment is the software development. KHA was the only consultant to provide a proposal that did not require additional software development and/or controller change-out.

Staff recommends KHA's KITS for deployment. Prior to approaching the City Council for approval of an award of a contract with KHA, staff negotiated with KHA to identify areas that were not detailed to the level of staff's comfort. The final negotiations deleted the purchase of equipment for the Bus Rapid Transit (BRT) route along Sepulveda Boulevard and deleted certain hardware purchases. The cost to implement the BRT route would be covered by Metro after the installation and integration of the City's TCS. Final negotiations with KHA also included 2 additional years of warranty and support. The final negotiated cost of deployment is $473,516. KHA's original proposal and the supplemental negotiations are attached to this report as Attachment 2.

FISCAL ANALYSIS

The total budget for this project is $2,036,100. There are four funding sources for this project: 1) Grants Capital (73% of total funding), 2) Special Gas Tax (11% of total funding), 3) Developer Mitigation funds (9% of total funding), and 4) General Fund Capital (7% of total funding). Through the first quarter of FY 2008-09 (i.e. September 30th), approximately $554,000 have been expended. There are sufficient funds in the adopted 2008/09 Capital Improvement Budget from the various funding sources to pay for the proposed work.

ATTACHMENTS

1. Staff's Traffic Control System Official Evaluation Summary

2. Kimley-Horn Associates Original Proposal and Subsequent Supplement to Original Proposal (Basis for Contract)

MOTIONS:

That the City Council:

1) Approve a professional services agreement with Kimley-Horn Associates for a not-to-exceed amount of $473,516 for the installation of a Citywide Traffic Control System (KITS); and,

2) Authorize the inclusion of a provision in the professional services agreement to pay for additional communication infrastructure fixes for a not-to-exceed amount of $100,000; and,

3) Authorize the Director of Public Works/City Engineer to approve change orders in an amount not to exceed $57,352 (10% of contract including the additional $100,000 for communication infrastructure fixes); and

4) Authorize the City Attorney to review/prepare the necessary documents; and,

5) Authorize the City Manager to execute such documents on behalf of the City.