




July 6, 2020

To: Regional Planning and Highways Committee

From: Darrell E. Johnson, Chief Executive Officer 

Subject: Consultant Selection for Traffic and Intelligent Transportation Systems Engineering Services for Edinger Avenue Regional Traffic Signal Synchronization Program Project

Overview

On January 27, 2020, the Orange County Transportation Authority Board of Directors approved the release of a request for proposals for a consultant to provide traffic and intelligent transportation systems engineering services for the Edinger Avenue Regional Traffic Signal Synchronization Program Project. Board of Directors' approval is requested for the selection of the firm to perform the required work.

Recommendations

- A. Approve the selection of DKS Associates as the firm to provide traffic and intelligent transportation systems engineering services for the Edinger Avenue Regional Traffic Signal Synchronization Program Project.
- B. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-0-2018 between the Orange County Transportation Authority and DKS Associates to provide traffic engineering and intelligent transportation system services for Edinger Avenue Regional Traffic Signal Synchronization Program Project.

Discussion

The Orange County Transportation Authority (OCTA) was awarded funds from the state Solutions for Congested Corridors Program (SCCP) for the Edinger Avenue Regional Traffic Signal Synchronization Program (RTSSP) Project. OCTA will lead and administer this multi-agency traffic signal synchronization project. OCTA requires the services of a specialized traffic and intelligent transportation systems (ITS) engineering firm to deliver this project.

The Edinger Avenue RTSSP Project will synchronize approximately 41 signalized intersections over approximately 12 miles. The limits of the project are from Bolsa Chica Street (Huntington Beach) to Auto Mall Drive (Westminster), and include participation by the cities of Fountain Valley, Huntington Beach, Santa Ana, and Westminster. The respective project goals are to improve travel times, reduce emissions, and provide savings to motorists in reduced fuel consumption through new optimized coordinated synchronized traffic signal timing at all intersections along the project limits, consistent with previous countywide signal synchronization goals.

Procurement Approach

This procurement was handled in accordance with OCTA's Board of Directors (Board)-approved procedures for architectural and engineering (A&E) services that conform to both federal and state laws. Proposals are evaluated and ranked in accordance with the qualifications of the firm, staffing and project organization, and work plan. As this is an A&E procurement, price is not an evaluation criterion pursuant to state and federal laws. Evaluation of the proposals was conducted on the basis of overall qualifications to develop a competitive range of offerors. The highest-ranked firm is requested to submit a cost proposal and the final agreement is negotiated. Should negotiations fail with the highest-ranked firm, a cost proposal will be solicited from the second-ranked firm in accordance with Board-approved procurement policies.

The Board authorized the release of Request for Proposals (RFP) No. 0-2018 on January 27, 2020, which was electronically issued on CAMM NET. The project was advertised on January 27, 2020 and February 3, 2020, in a newspaper of general circulation. A pre-proposal conference was held on February 5, 2020, with 14 attendees representing ten firms. Two addenda were issued to provide pre-proposal conference information, responses to questions received, and handle administrative issues related to the RFP.

On February 26, 2020, six proposals were received. An evaluation committee consisting of members from the Contracts Administration and Materials Management and Strategic Planning departments, and external representatives from the cities of Anaheim, Buena Park, Santa Ana, and Westminster, met to review all submitted proposals.

The proposals were evaluated based on the following Board-approved evaluation criteria and weightings:

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|-------------------------------------|------------|
| • Staffing and Project Organization | 40 percent |
| • Work Plan | 35 percent |
| • Qualifications of the Firm | 25 percent |

Several factors were considered in developing the criteria weightings. Staff assigned the highest-level importance to staffing and project organization, as the qualifications and availability of the project manager, key task leaders, and staff resources are of most significance to the successful and timely delivery of the project. Likewise, high importance was given to the work plan criterion to emphasize the importance of the team's understanding of the project, its challenges, and its approach to implementing the various elements of the scope of work. The technical approach is critical to the successful performance of the project. The final criterion, qualifications of the firm, evaluated the firm's experience in performing work of similar scope and size.

The evaluation committee reviewed all proposals based on the evaluation criteria and found the following firms most qualified to perform the required services. The most qualified firms are listed below in alphabetical order:

Firm and Location

Albert Grover & Associates, Inc. (AGA)
Fullerton, California

DKS Associates (DKS)
Anaheim, California

Iteris, Inc. (Iteris)
Santa Ana, California

KOA Corporation (KOA)
Orange, California

On March 23, 2020, the evaluation committee interviewed the short-listed firms. The interviews consisted of a presentation allowing each team to present its qualifications, highlight its proposal, and respond to evaluation committee questions. Each firm was asked some general questions related to their qualifications, relevant experience, project organization, and approach to the work plan. Firms also highlighted their staffing plans, availability of resources, work plans, and perceived project issues. Each team was asked general questions regarding its approach to the requirements of the scope of work, management of the projects, coordination with various agencies, experience with similar projects, and the team's solutions in achieving the project's goals.

Based on the evaluation of written proposals and information obtained during the interviews, staff recommends DKS as the firm to provide traffic and ITS engineering services for the Edinger Avenue RTSSP Project. This firm ranked highest amongst the proposing firms based on the teams' relevant experience in traffic and ITS engineering services. DKS' proposed team is comprised of qualified key personnel with relevant and recent experience in traffic signal synchronization and ITS projects. The firm demonstrated an understanding of the project requirements and presented a comprehensive work plan addressing key issues that are critical to the success of the project. The following is a summary of the proposal evaluation results.

Qualifications of Firm

DKS has provided transportation planning and engineering services to public agencies across the United States since 1979. The firm has 139 professionals in seven offices nationally, and ten staff locally in the City of Anaheim. DKS has experience and expertise in traffic operational analysis, traffic signal synchronization, traffic signal design, systems engineering, and integration services in ITS and transportation communications networks. The majority of DKS' signal timing projects involve multiple jurisdictions and required consensus building amongst multiple agencies. DKS' recent and relevant projects for OCTA and Orange County include: State College Boulevard, Westminster Avenue/ 17th Street, Anaheim Boulevard, Olympiad Road – Felipe Road RTSSP, Los Alisos Boulevard corridor RTSSP, and the Magnolia Street corridor RTSSP.

KOA was founded in 1987 and provides traffic engineering, civil engineering, and transportation planning services. KOA has a project office in the City of Orange and various other locations in California, with more than 120 skilled staff members. KOA specializes in traffic engineering projects. Recent and similar projects in signal timing optimization and related services include: OCTA Traffic Signal Synchronization Master Plan, Los Angeles County Department of Public Works Traffic Signal Synchronization Projects (TSSP) projects, City of Azusa Traffic Management Systems Engineering, various TSSP projects with the cities of Beverly Hills, Coachella, and Long Beach.

Iteris specializes in transportation planning, engineering, and technology services since 1987. The firm has 450 employees and 19 offices across the United States, including an office in the City of Santa Ana. Iteris has experience in traffic engineering, ITS, transportation planning, initial impact studies, transportation modeling, planning systems engineering, and other transportation technologies, both nationally and internationally. Iteris has extensive experience in performing services of similar scope and magnitude. Relevant projects include: Northeast Ohio Areawide Coordinating Agency Signal Timing Optimization Program, Traffic Signal Retiming Initiative Pennsylvania

Department of Transportation District 6 Traffic Signal Retiming Services and Signalized Intersection Timing Program, and OCTA RTSSPs.

AGA was founded in 1993 and has relevant experience with traffic engineering, traffic signal synchronization, transportation planning, and ITS-related services. The firm has an office in the City of Fullerton with 19 employees. AGA has provided services to local agencies in Southern California for traffic engineering and ITS projects. Recent and relevant projects in Orange County include: Orange County Traffic Signal Coordination Program, Euclid Street Demonstration Project, Chapman Avenue Proposition 1B/Traffic Light Signal Project, Tustin Avenue/Rose Drive, Adams Avenue, La Paz Road, and Antonio Parkway TSSP projects.

Staffing and Project Organization

The short-listed firms proposed qualified project managers, key personnel, and subconsultants with extensive knowledge in traffic engineering and ITS services.

DKS' proposed team is skilled in signal timing and synchronization projects and has experience in traffic operations and transportation engineering including traffic signal timing, operational analysis, and systems engineering for ITS. DKS' proposed project manager has over 30 years of experience managing corridor studies, arterial signal systems projects, and ITS planning and development projects. The principal-in-charge for DKS has 25 years of experience and has been involved with several hundred traffic signal design and coordination projects, 150 of which involved light rail, streetcar, or bus transit signal priority. The proposed senior transportation engineer and signal timing lead has over 25 years of experience in the implementation and delivery of traffic signal synchronization projects, and has expertise and knowledge in signal timing, troubleshooting software and hardware issues, and evaluating signal systems, while developing optimized signal timing for over 500 traffic signals. The project team's task leaders and support staff are experienced in ITS, traffic engineering, operation maintenance and monitoring, systems communications, traffic data collection, signal improvements, and demonstrated knowledge on recent relevant projects in signal synchronization, signal improvement, communication design, and equipment implementation and installation.

DKS' team presented knowledge of advanced wireless systems, integrating mixed-mode communications, and field knowledge of local signal control strategies for enhanced arterial operations that have proven an effective benefit to arterial travelers on similar projects. The team includes the ITS and signal infrastructure and installation expertise of Ferreira Construction (Ferreira), who is proposed to play a key role in the areas of equipment implementation, utility coordination, electrical integration, and construction. The inclusion of Ferreira's

staff and resources is critical to the project goals, team collaboration, successful delivery, and implementation of the project. DKS' team has successfully worked together for many years on numerous traffic engineering and ITS projects.

KOA's proposed project team has experienced and qualified personnel. The proposed project manager has 12 years of experience managing traffic and civil engineering projects throughout Southern California and performed similar task for various cities and agencies in Los Angeles County. The principal-in-charge has more than 28 years of experience in transportation and planning, roadway design, traffic design, and transportation modeling and studies. KOA's task leaders are skilled in signal timing, design and implementation, and experienced in pedestrian crossings, urban bikeways, traffic control devices, and traffic planning services. KOA's key staff and support team have worked together on similar projects and have been involved on projects with OCTA and other local agencies, and are experienced in signal system design and implementation, signal modeling, traffic impact analysis, ITS, and integration.

Iteris' proposed project team demonstrated experience and relevance in transportation engineering, transportation planning, ITS, and traffic engineering. The project manager has 25 years of experience in the industry with transportation systems and analysis, planning and design, traffic engineering and signal timing and optimization, traffic training course development, traffic modeling, safety investigation and preliminary roadway design, and development and integration of real-time traffic systems engineering. The principal-in-charge has 22 years of experience in signal timing coordination, oversight projects, transportation systems, traffic engineering, and extensive experience managing and designing traffic engineering and ITS projects for numerous agencies. The project team consists of specialists and leaders in transportation planning, civil and traffic engineering, signal synchronization and advanced transportation management systems integrators. Iteris' key personnel include task leaders experienced in ITS, traffic engineering, operations, maintenance and monitoring, systems communications, traffic collection, traffic management centers, and signal improvement. The proposed team demonstrated experience working on numerous projects of similar size and scope.

AGA's proposed team is experienced in traffic engineering operational contracts for traffic signal timing and coordination, utilizing the firm's in-house traffic management systems. The proposed project manager has over 25 years of experience in traffic and transportation, and has managed over 11 different traffic engineering, traffic signal synchronization, and ITS projects for OCTA since 1998. AGA proposed an experienced quality assurance/quality control manager who has been extensively involved in ITS design, signal interconnect, coordination plan, traffic signal system design, and street lighting evaluation and

design. AGA's key personnel and support staff have experience in traffic operations and transportation engineering including traffic signal timing, operational analysis, traffic signal and communication design, and systems engineering for ITS. AGA's proposed team has successfully worked together for many years and implemented numerous transportation, signal timing, and synchronization projects.

Work Plan

The work plans of all four short-listed firms met the scope requirements of the RFP, and each firm effectively discussed its approach to the project.

The work plan for DKS demonstrated a clear and distinct understanding of the project's key requirements, project challenges, and practical recommendations and solutions. The work plan addressed traffic volumes and synchronization performance, signal cycle timing, pedestrian and bike detection, and proposed improvements. DKS proposed a proactive management team approach to include weekly project meetings, hands-on relationships with the cities, effective budget controls, and value engineering techniques. Some key elements addressed were critical travel times, cross-coordination, pedestrian and bike signals challenges, railroad crossings, and California Department of Transportation and city coordination. DKS proposed efficient signal synchronization timing to be performed at each corridor and suggested traffic signal upgrade recommendations. The firm demonstrated a solid project management approach, quality assurance and quality control methods, and adherence to the project schedule. DKS discussed solutions for traffic signal optimization and the use of automated traffic signal performance measure (ATSPM) in the performance of their work. DKS demonstrated their understanding of issues and proposed solutions in the interview, and recommended traffic equipment upgrades to improve signal synchronization.

KOA's proposed work plan demonstrated an understanding of the project requirements. The firm discussed specifics on the tasks to be performed and completed a detailed work plan of the corridor, which addressed identified issues. The firm demonstrated a thorough understanding of project corridors by identifying the traffic conditions, pedestrian and school activity, signal synchronization timing, and delays. KOA's work plan proposed examples of signal equipment upgrades, modification of signal phasing, and pedestrian and bike traffic improvements. During the interview, the project team demonstrated knowledge related to traffic synchronization projects and specific details of challenges in various project corridors.

Iteris' work plan conveyed a clear project understanding, project management approach, quality assurance and quality control methods, adherence to schedule and budget, and discussed traffic signal equipment upgrades to enhance operations. The work plan described implementation, operation, and monitoring phases of the project, and presented improvements to signal timing and intersection solutions. Iteris conducted travel time studies and field observations for enhancements of the signal timing and synchronization throughout the corridor. The work plan demonstrated a thorough understanding of traffic conditions and signal synchronization timing and delays. Iteris proposed upgrades, improvements, and value-added components to the project including a three-year hosted ATSPM system for performance measures. The interview demonstrated a good understanding of possible corridor issues and proposed solutions.

The work plan for AGA demonstrated a good understanding of project requirements and project issues. AGA discussed their project approach and how they would perform operations and timing analysis to develop a coordination of signal timing. The firm made recommendations to new or modified traffic signal equipment to improve synchronization and traffic enhancement solutions. AGA's work plan addressed high traffic volumes at certain intersections, split phase operations, and pedestrian traffic challenges. The firm provided solutions for traffic signal optimization and signal timing analysis implementation. AGA's interview demonstrated a good breakdown of tasks to be performed.

Procurement Summary

Based on the evaluation of the written proposals, the team qualifications, and information obtained during the interviews, the evaluation committee recommends the selection of DKS as the top-ranked firm to provide traffic and intelligent transportation systems engineering services for Edinger Avenue RTSSP. DKS demonstrated an understanding of the project requirements and submitted a comprehensive work plan addressing key issues and proposed improvements. DKS presented a thorough interview highlighting the firm's availability of staff and resources, which is critical to the successful delivery of the project.

Fiscal Impact

The project is included in OCTA's Fiscal Year 2020-21 Budget, Strategic Planning Division, Account No. 0017-7519-SPF30. Staff has secured funds in the amount of \$4,957,000 (80 percent from the SCCP [SB 1 {Chapter 5, Statutes of 2017}])). Measure M2 will provide \$991,421 (16 percent). The local agencies will provide \$247,472 (four percent) of the total project cost in matching funds.

Summary

Staff requests Board approval for the Chief Executive Officer to negotiate and execute Agreement No. C-0-2018 with DKS to provide traffic and ITS engineering services for the Edinger Avenue RTSSP Project.

Attachments


- A. Review of Proposals, RFP No. 0-2018 Consultant Services for Traffic and Intelligent Transportation Systems Engineering Services for Edinger Avenue Regional Traffic Signal Synchronization Project
- B. Proposal Evaluation Criteria Matrix – A&E, RFP No. 0-2018 Consultant Services for Traffic and Intelligent Transportation Systems Engineering Services for Edinger Avenue Regional Traffic Signal Synchronization Project
- C. Contract History for the Past Two Years, RFP No. 0-2018: Consultant Services for Traffic and Intelligent Transportation Systems Engineering Services for Edinger Avenue

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