



February 14, 2018

To: Finance and Administration Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Contractor Selection for the Toll Lanes System Integrator Services for the 405 Express Lanes and 91 Express Lanes

Overview

On August 28, 2017, the Orange County Transportation Authority Board of Directors approved the release of a request for proposals to retain a contractor to provide toll lane system integrator services for the design, installation, operations, and maintenance of the electronic toll and traffic management system for the 405 Express Lanes and 91 Express Lanes. Board of Directors' approval is requested for the selection of a firm to perform the required work, and to amend the fiscal year 2017-18 budget to accommodate for the toll lanes system integrator services.

Recommendations

- A. Approve the selection of Kapsch TrafficCom USA, Inc., as the firm to provide toll system integrator services for the design, installation, operations, and maintenance of the electronic toll and traffic management system for the 405 Express Lanes and 91 Express Lanes.
- B. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-1911 between the Orange County Transportation Authority and Kapsch TrafficCom USA, Inc., in the amount of \$42,309,259, to provide toll lanes system integrator services for the design, installation, operations, and maintenance of the electronic toll and traffic management system for the 405 Express Lanes and 91 Express Lanes.
- C. Approve an amendment to the Orange County Transportation Authority's Fiscal Year 2017-18 Budget, in the amount of \$32,309,259, to accommodate for the toll lanes system integrator services for the design, installation, operations, and maintenance of the electronic toll and traffic management system for the 405 Express Lanes and 91 Express Lanes.

Discussion

The 91 Express Lanes has been operational for the past 22 years, and the 405 Express Lanes is anticipated to open in 2023. Both facilities comprise the Orange County Transportation Authority (OCTA) Express Lanes Program. The Express Lanes Electronic Toll and Traffic Management (ETTM) System Project (Project) is for the replacement of the existing 91 Express Lanes ETTM System and the implementation of a new ETTM System on the 405 Express Lanes, as part of the design-build Interstate 405 (I-405) Improvement Project from Euclid Street to Interstate 605 (I-605).

The current 91 Express Lanes ETTM System has been in place since 2004, with an upgrade completed in 2010. Sirit Corporation, which later became 3M Company (3M), was the firm responsible for the original development of the system design, integration, construction, installation, and maintenance of the ETTM System. As a result of 3M notifying OCTA in 2016 of their intent to no longer provide the existing level of maintenance support for the 91 Express Lanes, OCTA contracted with Cofiroute USA, LLC, to assume responsibility for the maintenance and support of the ETTM System.

In January 2017, OCTA entered into a design-build contract with OC 405 Partners for the design and construction of the I-405 Improvement Project, to be completed and open to the public in 2023. The I-405 Improvement Project will add one general purpose lane from Euclid Street to I-605 and will add an additional lane in each direction that would combine with the existing high-occupancy vehicle (HOV) lane to provide dual express lanes in each direction on the I-405 from State Route 73 (SR-73) to I-605, otherwise known as the 405 Express Lanes.

On October 12, 2015, the OCTA Board of Directors (Board) approved the operating assumptions for the 405 Express Lanes in which the 405 Express Lanes will operate in a manner similar to the existing 91 Express Lanes with all-electronic tolling using transponders (or future non-cash/electronic tolling) and with the same account types and violation processing.

On August 28, 2017, the Board approved the release of a request for proposals (RFP) to retain contractor services to provide toll lanes system integrator services for both the 405 Express Lanes and 91 Express Lanes. The Project includes the design, development, testing, installation, and maintenance of a complete and integrated ETTM System, which will be comprised of several subsystems that capture and transmit fully-formed trips to the back office system for customer account billing or violation processing. In addition, the selected

contractor will provide and maintain the roadside systems, including the nine variable message signs for the 405 Express Lanes, as well as the closed circuit television cameras for both express lanes facilities. The contractor will also establish and operate a traffic operations center and provide staff to monitor incidents and traffic conditions on the 405 Express Lanes facility.

Procurement Approach

This procurement was handled in accordance with OCTA's Board-approved procedures for professional and technical services. Various factors are considered in an award for professional and technical services. Award is recommended to the firm offering the most comprehensive overall proposal, considering such factors as staffing and project organization, prior experience with similar projects, work plan, technical approach as well as cost and price.

On August 28, 2017, RFP 7-1911 was issued electronically on CAMM NET. The procurement was advertised on August 28 and September 5, 2017, in a newspaper of general circulation. A pre-proposal conference was held on September 14, 2017, with 11 attendees representing nine firms. Nine addenda were issued to make available a copy of the pre-proposal presentation and conference registration sheets, provide responses to questions received, and handle administrative issues related to the RFP.

On October 31, 2017, four proposals were received. An evaluation committee consisting of staff from Contracts Administration and Materials Management, Highway Programs, and Express Lanes Programs departments, representatives from California Department of Transportation (Caltrans) District 12, San Diego Association of Governments, Alameda County Transportation Commission, and the Transportation Corridor Agencies, met to review all submitted technical proposals. The proposals were evaluated based on the following Board-approved evaluation criteria and weights:

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| • Qualifications of the firm | 15 percent |
| • Staffing and Project Organization | 25 percent |
| • Work Plan | 15 percent |
| • Technical Approach | 25 percent |
| • Cost and Price | 20 percent |

Several factors were considered in developing the criteria weights. Work plan and technical approach together were given a combined weight of 40 percent due to the technical nature of the deliverables and the Offeror's proposed application of current available technology to OCTA's project demonstrating

substantial experience in the required scope of work and industry practices. Staffing and project organization was assigned a weight of 25 percent to emphasize the team's understanding of and experience with the Project and its challenges and the approach to implementing the various elements of the scope of work. The qualifications of the firm criterion was assigned a lesser weight, since it is the individuals' experiences that are of great significance on this type of Project. Cost and price was weighted at 20 percent to ensure delivery of a cost-effective implementation, operation, and maintenance of the Project.

On December 4, 2017, the evaluation committee reviewed the four proposals based on the evaluation criteria and short-listed the two firms most qualified to perform the required services. The most qualified firms are listed below in alphabetical order:

Firm and Location

Kapsch TrafficCom USA, Inc. (Kapsch)
McLean, Virginia

TransCore, LP (TransCore)
Nashville, Tennessee

On December 13, 2017, the evaluation committee conducted interviews with the two short-listed firms. Each firm had the opportunity to present its approach for accomplishing the requested services, demonstrate their technical approach, various aspects of their proposed solutions and systems, project team qualifications, and respond to evaluation committee questions. During the interview, each firm described its understanding of the requirements of this Project in the design, implementation, and maintenance and operation of the toll system, performance requirements, necessary coordination with the design-build contractor on the Project, and the transition from legacy to new toll system for the 91 Express Lanes. Each firm demonstrated the capabilities of its' proposed toll systems and technology in supporting the Project's requirements. In addition to answering questions of a general nature, both firms also answered specific clarifying questions related to each firm's proposal relative to the scope of work and requirements.

After considering the firms' demonstrations and responses to the questions asked during the interviews, the evaluation committee adjusted the preliminary scores for the two-shortlisted firms. However, the ranking of the firms remained unchanged.

Based on the evaluation of written proposals and the information obtained from interviews, it is recommended that Kapsch be selected to provide toll lanes system integration services for the 405 Express Lanes and 91 Express Lanes. The following is a brief summary of the proposal evaluation results.

Qualifications of the Firm

The two short-listed firms were found to be qualified to perform the types of services requested by the RFP. Both firms are established with highly relevant experience and resources.

The firms demonstrated experience and understanding of the scope of work and the Project's needs in the areas of coordination with the design-builder for the 405 Express Lanes, transition from legacy to new toll system for the 91 Express Lanes. Both firms demonstrated the depth of their firms' resources and extensive experience in toll systems and technology.

Kapsch has been in business for 125 years, offering worldwide services in the tolling and transportation industries. Kapsch has extensive experience in Open Road Tolling (ORT) / All Electronic Tolling (AET) collection systems, operations and integrations, supplying approximately 80 percent of all ORT/AET systems worldwide. In the United States, Kapsch was the toll systems integrator for several tolling projects for the Washington Department of Transportation, including the I-405 Express Lanes project in Seattle, Washington as well as several tolling projects in Austin, Texas for the Central Texas Regional Mobility Authority. Kapsch has an established presence in California being recently awarded the toll system integrator contracts for the Alameda County Transportation Commission Express Lanes and the Riverside County Transportation Commission I-15 Express Lanes projects. In addition, Kapsch has strong experience transitioning from legacy system to new lane system, including the Rhode Island Bridge Toll System and will be replacing the toll collection system for the Golden Gate Bridge in Northern California. Kapsch also has comprehensive industry experience working with and assisting agencies with transitioning between the different tolling protocols, most importantly 6C, as they have performed numerous multi-protocol deployments in the industry. This is extremely important as all California toll agencies are required to implement the new 6C protocol by January 2019 and continue to use the existing Title 21 protocol until it sunsets in December 2023.

TransCore has been in business for over 80 years deploying and supporting tolling and transportation systems worldwide. TransCore has solid experience in ORT/AET deployments with the first ORT system deployment in the country

along the Oklahoma Turnpike for the Oklahoma Turnpike Authority (OTA) in 2002. The firm was the toll system integrator for Phase I of the SR 237 Express Lanes for the Santa Clara Valley Transportation Authority and the Metro HOV to high-occupancy toll lanes conversion project for the Houston Metropolitan Transit Authority for Harris County. TransCore is assisting OTA with the migration from their legacy system to the new lane system technology. The proposal was very well written and organized with attention to detail.

Staffing and Project Organization

Both short-listed firms proposed highly qualified and diversified staff to adequately handle the work described in the scope of work and meet the RFP requirements.

Kapsch has about 3,500 employees worldwide with over 500 employees in the United States and offers a reliable depth in resources, which allows for quick mobilization to support the launch and delivery of the Project. Kapsch designated key personnel in each required area of expertise, with all key staff being direct Kapsch employees. The Project team is extremely qualified and has worked together on several relevant and recent tolling projects of similar scope to the Project. The project manager has 20 years of direct electronic toll collection experience, including project management, system engineering, and maintenance. The deputy project manager also has over 20 years' experience managing toll collection systems integration. Both of these individuals have had prior working experience with other key personnel identified on the team. Kapsch's team demonstrated the depth of the firm's resources, including availability of all key personnel and subject matter experts, and extensive experience in toll systems integration. During the interview and demonstration, Kapsch's team was very well-prepared, exhibited a strong team cohesion, and successfully responded to all questions raised by the evaluation panel.

TransCore has about 2,200 employees worldwide who provide a deep bench strength and wide range of skill sets when needed to support any project or customer. TransCore proposed a well-balanced team that is highly experienced with TransCore's proprietary lane solution that is to be deployed on the Project, the Infinity Digital Lane System. All key personnel listed have been with the firm for more than ten years each, and are experienced in all aspects of the Project's scope of work and requirements. The project manager has over 15 years of experience in the development and project management of toll collection system deployments. The availability of key personnel is good.

Work Plan

Both firms met the requirements of the RFP, and each firm adequately discussed its approach to toll systems design, development, installation, operations, and maintenance to accomplishing the Project's objectives and overall schedule.

Kapsch demonstrated a thorough understanding of the Project's requirements in their proposal, as well as during the interview. Their work plan addressed all requirements of the scope of work, as well as meeting key performance indicators and system security. Evident in their work plan and addressed during the interview is their position of transparency to the agency, where metrics and reports, associated risks and analyses are available at any level and at any time. The operations and maintenance team is involved during the onset of the design of the toll system in order to ensure ease of use and serviceability of the end product. Kapsch employs a multi-level review process, that includes peer reviews, and gate reviews with senior leadership, to ensure that all the scope of work requirements are met.

Kapsch understands the need to collaborate with the design-builder, OC 405 Partners, and is committed to working closely with them to ensure an efficient and integrated delivery of all required ETTM system for the Project. Kapsch will develop a detailed infrastructure requirements document that sets the level of understanding and expectations between Kapsch and OC 405 Partners and will provide the baseline for the civil site acceptance checklist.

In the work plan and during the interview, the Kapsch team demonstrated the robustness of their Remote Operations and Maintenance System (ROMS), which will provide 24 hours, 7 days per week monitoring and notifications, distribute all maintenance events, alarms, and assigned work. ROMS will immediately create service tickets and notify the assigned field or software technician of any equipment failure. Dashboards and reports are customizable and highly configurable to OCTA's needs. ROMS will provide OCTA with a complete, transparent, easy to use reporting, operations management, maintenance, and inventory control tool.

TransCore offered a detailed and easy to follow work plan, addressing the requirements of the RFP. A roles and responsibilities table was provided showing key personnel involvement during key activities throughout the Project's phases. The firm also provided a very detailed and complete project schedule. TransCore offered a detailed description of the quality process that will be implemented on the Project as well as a risk mitigation plan identifying some of the perceived risks with mitigation measures.

Technical Approach

Both firms discussed their technical systems and processes approach in meeting the Project's requirements. The firms described unique design or operational features of their systems that will benefit OCTA.

Kapsch proposed a fully integrated, transparent, easy to maintain, and scalable lane solution that provides high accuracy vehicle detection, image capture, and transponder association. Kapsch's ETTM system is comprised of field-proven components that allows for system redundancy. All end devices are addressable to support remote troubleshooting and reset, which minimizes the need for roadway closures.

As presented in Kapsch's demonstration during the interview, Kapsch's proposed automatic vehicle detection system, the Next-Gen Vehicle Detection System (nVDC), tracks all vehicles entering the toll zone until they leave the tolling region, ensuring all vehicles are detected, thus minimizing revenue leakage. It performs in all-weather conditions, regardless of speed or location within the zone. There are no gaps in detection.

Kapsch's lane solution is adaptable for both single and dual-gantry sites, such as the 405 Express Lanes and the 91 Express Lanes, respectively. Their proposed technical approach does not utilize in-pavement loops but rather uses fully overhead roadside redundant sensors and lasers for vehicle detection. This solution will not require replacement of the recently repaved lanes on the 91 Express Lanes, or close the express lanes to repair or replace the loops.

TransCore proposed a fully-functional, redundant, highly accurate and scalable solution system highlighting TransCore's Infinity Roadside system, and other roadway support systems that are proprietary to TransCore and altogether comprise the ETTM system. Their proposed lane system is easily upgradeable and maintained, which would significantly reduce lane down time and revenue leakage. Additionally, TransCore is proposing to use a test track facility to install new ETTM equipment and perform all required testing prior to installation for both the 91 and the 405 Express Lanes.

Cost and Price

Pricing scores were based on a formula which assigns the highest score to the firm with the lowest total price and scores the other proposals' total prices based on their relation to the lowest total price. Kapsch received the highest score based on the initial and option term pricing of \$57,115,492. This contract

authorization request is for the initial term in the amount of \$42,309,259. The total price proposed by Kapsch was the lowest of all the firms' proposed prices, and is under the budgeted amount for the Project.

Proposers were requested to provide cost and price information for the 405 Express Lanes separate from that information for the 91 Express Lanes, to allow for proper financial tracking on both facilities over the duration of the Project. The price breakdown, by Express Lanes facility, proposed by the recommended firm covering the initial term, is as follows:

Price for the 91 Express Lanes	\$13,726,604
Price for the 405 Express Lanes	\$28,582,655
Total Price for both Express Lanes Facilities	\$42,309,259

The costs include not only design and implementation of the ETTM systems for both facilities, but also the maintenance of both systems until the expiration of the contract in 2028. The initial term of the contract is for a period of ten years. The price for the 405 Express Lanes facility is higher than that of the 91 Express Lanes facility because the implementation work is significantly more involved on the 405 Express Lanes as it is a brand new express lanes facility, with twelve toll zones compared to the 91 Express Lane's five toll zones, in addition to the nine variable message signs and traffic operations center required for the 405 Express Lanes.

Procurement Summary

Based on the evaluation of the written proposals, the teams' qualifications, the work plan, technical approach, cost and price, and information obtained from the interviews, the evaluation committee recommends the selection of Kapsch TrafficCom USA, Inc. as the top-ranked firm. The Kapsch team's qualifications and their understanding of the Project's implementation and organization, work plan, technical approach, and Caltrans' and Federal Highways Administration's requirements are excellent.

Fiscal Impact

The approved OCTA FY 2017-18 Budget included \$10 million for the toll lanes system integrator for the 91 Express Lanes. A budget amendment of \$32,309,259 is required to award the encumbered contract for the toll lanes system integrator and consists of \$28,582,655 for the 405 Express Lanes and \$3,726,604 for the 91 Express Lanes, with the revenue sources to cover the

amendment comprising of Transportation Infrastructure Finance and Innovation Act funds and 91 Express Lanes funds, respectively.

Summary

Based on the information provided, staff recommends the Board authorize the Chief Executive Officer to negotiate and execute Agreement No. C-7-1911 with Kapsch TrafficCom USA, Inc., in the amount of \$42,309,259, to provide toll lanes integration services for the 405 Express Lanes and 91 Express Lanes, and to approve the amendment to the Orange County Transportation Authority's Fiscal Year 2017-18 Budget, in the amount of \$32,309,259, to accommodate for the toll lanes integration services for the 405 Express Lanes and 91 Express Lanes services.

Attachments

- A. Review of Proposals, RFP 7-1911 Toll Lanes System Integrator Services for the 405 Express Lanes and the 91 Express Lanes.
- B. Proposal Evaluation Criteria Matrix (Short-listed), RFP 7-1911 Toll Lanes System Integrator Services for the 405 Express Lanes and the 91 Express Lanes.
- C. Contract History for the Past Two Years, RFP 7-1911 Toll Lanes System Integrator Services for the 405 Express Lanes and the 91 Express Lanes.

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