



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Julia H. Cooper

SUBJECT: SEE BELOW

DATE: September 8, 2020

Approved

Date

9/10/20

**SUBJECT: REPORT ON REQUEST FOR PROPOSAL FOR AN AUTOMATED
TRAFFIC SIGNAL PERFORMANCE MEASURES SYSTEM**

RECOMMENDATION

Accept the report on the Request for Proposal and adopt a resolution authorizing the City Manager to:

- (a) Execute an agreement with Econolite Systems, Inc. (Anaheim, CA) for the purchase and deployment of an Automated Traffic Signal Performance Measures System at 100 signalized intersections along 10 major commuter corridors in the City of San José, including software licenses and subscriptions, associated professional services for project management, implementation, training, and maintenance and support for an initial three-year term beginning on or about October 1, 2020 and ending on or about September 30, 2023 with a maximum compensation not to exceed \$236,767, subject to the appropriation of funds; and
- (b) Negotiate and execute amendments and change orders as required for any unanticipated changes for a contingency amount not to exceed \$24,000 during the initial three-year term, subject to the appropriation of funds; and
- (c) Exercise up to seven one-year options to extend the term of the agreement through September 30, 2030 for ongoing software subscriptions, technical support and maintenance, and related professional services as may be required, subject to the appropriation of funds.

OUTCOME

To deploy an Automated Traffic Signal Performance Measures System (ATSPM or System) in highly congested traffic corridors of the City of San José (City) to provide cost-effective performance measurements of traffic signals and enhance travel time reliability, reduce travel time delays, minimize pedestrian delay, and improve safety and traffic flow.

BACKGROUND

The City's Department of Transportation (DOT) operates and maintains over 950 traffic signals, some on behalf of the California Department of Transportation (Caltrans) and nearby local government agencies. Most of the intersections are along corridors where DOT coordinates the traffic signals to maximize traffic flow and improve the experience of the traveling public across all modes of transportation.

To address changes in traffic patterns, conventional traffic signals must be retimed which is a time-consuming process that requires manual data collection and analysis. Currently, signal retiming at the City occurs on a relatively low frequency cycle: every 3-5 years for major, high-congestion corridors and every 6-8 years for lower volume corridors, due to funding and resource constraints. This leads to suboptimal traffic operations that may persist for several years. The existing system has many limitations: (1) it is difficult to measure and determine if the signal timing is operating as designed, (2) it does not provide a means to track traffic flow during events or how long it takes to clear traffic congestion, and (3) signal malfunctions persist for extended periods because the system is unable to automatically detect and report them.

By contrast, ATSPM systems use almost real-time traffic data to keep signal timing current and helps prevent operational efficiency from deteriorating between signal retiming cycles. They also proactively recommend timing adjustments and monitor and report equipment and sensor health, as well as optimize available green light time for multi-modal services (e.g., pedestrian, bicycle, and transit). Third-party data providers may also be integrated into the System to provide additional insights and enhance system capabilities. The gathered data can be compared to historical data, providing valuable insight into traffic trends, efficiency, and travel patterns, all of which will aid DOT staff in improving overall traffic operations.

The City's DOT received funds from the Metropolitan Transportation Commission's Innovative Deployments to Enhance Arterials (IDEA) grant award to implement ATSPM at 100 signalized intersections along 10 high-traffic corridors in the City. DOT would like to utilize those funds specifically along Alum Rock Avenue, Saratoga Avenue, Tully Road, Hedding Street, Coleman Avenue, Cottle Road, Santa Teresa Boulevard, Stevens Creek Boulevard, Winchester Boulevard, and San Fernando Street. These corridors operate at saturated flow rates during peak hours and experience varying levels of traffic demands outside peak hours. These locations were selected for the implementation of an ATSPM system due to the limited travel time improvements achieved in past retiming projects and congestion complaints received from motorists. With the implementation of an ATSPM system, the traffic signals along these ten corridors will be

responsive to real-time traffic conditions (particularly, heightened traffic congestion) and automatically provide optimal signal timing to proactively handle fluctuations in traffic volume and travel speed.

ANALYSIS

In January 2020, the Finance Department released a Request for Proposal (RFP) for Automated Traffic Signal Performance Measures through the City's e-procurement system, Biddingo. Three proposal responses were received prior to the submittal deadline from the following companies:

- Econolite Systems, Inc. (Anaheim, CA)
- Iteris, Inc. (Santa Ana, CA)
- Kimley-Horn and Associates, Inc. (Phoenix, AZ)

Evaluation Process: Proposals were evaluated and scored independently by a five-member evaluation team comprised of representatives from DOT and the Metropolitan Transportation Commission. Two companies were selected to participate in oral interviews and technical demonstrations, and staff conducted a Best and Final Offer (BAFO) with the two finalists to make clarifications and obtain final pricing.

Evaluation scores for the two finalists are summarized below:

Evaluation Criteria	Maximum Points	Econolite Systems, Inc.	Iteris, Inc.
General Requirements	15	14	14
Experience and Qualifications (BAFO)	10	7	9
Project Approach/Schedule	10	9	8
Technical Capabilities (BAFO)	10	7	9
Cost Proposal (BAFO)	15	15	8
Oral Interview/System Demonstration	40	32	33
TOTAL	100	84	81

Disadvantaged Business Enterprise (DBE) Program Requirements: As a recipient of federal highway funds, the City must comply with the requirements of Title 49 CFR 26 entitled Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs (DBE Program). The primary objective of the DBE Program is to provide small businesses owned and controlled by socially and economically disadvantaged individuals a fair opportunity to complete for federally funded transportation contracts.

The DBE goal for this project is zero percent (0%) based on a determination made by the Office of Equality Assurance. The goal was set at 0% because there does not appear to be any viable work that can be performed by a subcontractor; however, the awarded vendor is encouraged to

consider the utilization of DBE subcontractors to provide them with a full and fair opportunity to participate in the contract resulting from this RFP, if possible and appropriate.

Local and Small Business Enterprise Preference: In accordance with San José Municipal Code Section 4.12.330, the application of local and small business enterprise preference shall not apply when the funding source prohibits use of the preference. This project is federally funded and may not include a local preference.

Protest: The City's RFP process included a ten-day protest period that began when the City issued the Notice of Intended Award on August 3, 2020. No protests were received.

Award Recommendation: Staff recommends award of contract to Econolite Systems, Inc. (Econolite) whose proposal was scored as the best value proposal per the evaluation criteria set forth in the RFP. Econolite's proposal met or exceeded all RFP specifications, and their System rated highly in the following key areas:

- Extensive experience, knowledge, and expertise deploying the proposed System for other public agencies nationwide.
- A cost-effective proposed System.

Staff conducted reference checks with the City of Johns Creek (GA) and Harris County (TX). Both references were positive.

Summary of Proposed Agreement: The agreement with Econolite will include (1) software licenses and subscriptions, professional services for project management, requirements gathering, system architecture and design, installation, configuration, integration, optimization, verification, training, deployment, and maintenance and support during the initial three-year term; (2) fixed pricing for the initial three-year term; 3) a detailed scope of services to ensure that the implemented solution complies with the City's requirements, including security, scalability, redundancy, disaster recovery, and system performance; 4) a preliminary project implementation plan that meets the City's requirements for project completion; and 5) a compensation schedule within the City's budget that includes milestone payments tied to the successful completion of key project deliverables and a final acceptance process that triggers the release of the retainage held on all implementation deliverables.

The agreement includes a provision for seven (7) additional one-year options to extend the agreement for ongoing software subscriptions, support, maintenance, and related professional services. After the initial three-year term, Econolite may request price adjustments by submitting their justification for the request which will be subject to approval by the City and may not exceed 3% over the previous year.

CONCLUSION

Approval of this recommendation will provide DOT with the ability to proactively identify and mitigate traffic congestion by optimizing traffic signal timing in real time, thus reducing delays, vehicular emissions, and travel time for commuters while increasing safety and reliability.

EVALUATION AND FOLLOW-UP

This memorandum will not require any follow-up from staff.

CLIMATE SMART SAN JOSE

The recommendation in the memorandum aligns with one or more Climate Smart San José energy, water, or mobility goals.

PUBLIC OUTREACH

This memorandum will be posted on the City's Council Agenda website for the City of San José Council meeting to be held on September 22, 2020.

COORDINATION

This memorandum has been coordinated with the Department of Transportation, the City Attorney's Office, and the City Manager's Budget Office.

COMMISSION RECOMMENDATION/INPUT

No commission recommendation or input is associated with this action.

FISCAL/POLICY ALIGNMENT

This action is consistent with the City's 2020-2021 Proposed Operating Budget and City Service Area of Transportation and Aviation Services to (1) provide safe and secure transportation systems; (2) provide viable transportation choices that promote a strong economy; (3) travelers have a positive, reliable, and efficient experience; and (4) provide a transportation system that enhances community livability.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION (3-year initial term) \$236,767

2. COST ELEMENTS:

One-Time Costs (3-year initial term)

- Project Management	\$23,682
- Requirements Gathering	14,990
- Installation, Configuration, Integration, and Deployment	77,172
- Final Verification of the ATSPM System	8,098
- Training and System Documentation	8,532
- Software License(s) and Subscriptions, Support, and Maintenance	56,940
- Go-Live	0
- Final Acceptance	47,353

Subtotal \$236,767

CONTRACT NOT TO EXCEED TOTAL (3-year initial term) \$236,767

Contingency 24,000

INITIAL 3-YEAR TERM TOTAL \$260,767

3. SOURCE OF FUNDING: 429 – Building and Structure Construction Tax

4. FISCAL IMPACT: The Department of Transportation received a one-time allocation for this project via the Metropolitan Transportation Commission’s Innovative Deployments to Enhance Arterials (IDEA) Program. After the initial three-year term, any price increases in ongoing subscriptions, maintenance, and support must be justified by the vendor, approved by the City, and are subject to the appropriation of funds.

BUDGET REFERENCE

The table below identifies the funds and appropriations to fund the contract recommended as part of this memorandum.

Fund #	Appn. #	Appn. Name	Total Appn.	Amt. for Contract*	2020-2021 Proposed Capital Budget Page*	Last Budget Action (Date, Ord. No.)
429	410K	Automated Traffic Signal Performance Measures	\$1,048,000	\$236,767	V-428	6/23/20 Ord. No. 30437

* The FY 2020-2021 Adopted Capital Budget was adopted by Council on June 23, 2020 but is not yet published.

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CEQA

Not a Project, File No. PP17-003, Agreements/Contracts (New or Amended) resulting in no physical changes to the environment.

/s/

JULIA H. COOPER

Director of Finance

For procurement and contract questions, please contact Jennifer Cheng, Deputy Director of Finance, at (408) 535-7059. For program-related questions, please contact Lily Lim-Tsao, Deputy Director of DOT, at (408) 975-3269.