



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Julia Cooper

SUBJECT: SEE BELOW

DATE: October 16, 2017

Approved

D. D. S. L.

Date

10/26/17

**SUBJECT: REQUEST FOR PROPOSAL FOR A TRANSPORTATION INCIDENT
MANAGEMENT CENTER (TiMC) EVENT TRACKING SYSTEM**

RECOMMENDATION

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

1. Execute an Agreement with Parsons Transportation Group, Inc. (La Palma, CA) for the purchase and deployment of a Transportation Incident Management Center Event Tracking System (System), including software, and professional services for project management, software development, implementation, configuration, training and ongoing support and maintenance for an initial term of twelve years ending on or around December 2029, with maximum compensation not-to-exceed \$1,678,351, including ten years of post-implementation maintenance and support, subject to the appropriation of funds; and
2. Execute amendments and change orders as may be required for any unanticipated changes to the City's requirements, not to exceed \$255,000, subject to the appropriation of funds.

OUTCOME

The implementation of a roadway event tracking software system within the City's Transportation Incident Management Center (TiMC) will allow City traffic signal operations staff to quickly identify and mitigate congestion and reduced roadway capacity due to planned events and unanticipated incidents.

BACKGROUND

Transportation Incident Management Centers are used to help improve traffic mobility and enhance safety on streets and freeways. They are traditionally equipped with traffic surveillance, traffic signal control, and motorist information systems that enable operators to detect traffic congestion and incidents that negatively impact roadway capacity and to utilize the data to make decisions on the appropriate mitigation response.

In 2008, the City's Department of Transportation (DOT) secured \$5,400,000 in federal earmark High Priority Program (HPP) grant funds to construct a TiMC facility to enhance DOT's ability to manage traffic flow conditions in real time. The first phase of work focused on facility construction. In 2013¹, City Council awarded a construction contract to build the TiMC and the facility was activated in November 2014. The City's TiMC is located on the 5th Street side of the City Hall Employee Garage and serves as the hub where DOT traffic signal operations staff monitors and manages day-to-day traffic flow conditions and supports event parking and traffic operations for various facilities, including the SAP Center and AVAYA Stadium.

Staff currently conducts traffic incident management by individually reviewing data from a patchwork of information systems and data sources, including but not limited to the Google traffic congestion map, the Department of Public Works' Cone Zone map, the Metropolitan Commissions Transportation System's 511 System, the City's traffic video cameras, and service requests from the public. These data sources provide information on events and activities that impact traffic congestion - such as vehicle incidents, construction activities, stage events, freeway congestion, and traffic signal malfunctions. This allows staff to make decisions on the appropriate actions to take. Such actions may include adjusting traffic signal timing in response to roadway inefficiencies and to coordinate with City dispatch or Infrastructure Maintenance staff to resolve traffic signal malfunctions.

As part of the second phase of the federal HPP project, the City seeks to enhance the TiMC's traffic management capabilities by deploying an information system that integrates the information from the various data sources mentioned above and allows staff to input and track real-time events in a comprehensive TiMC Event Tracking System. The System would alert staff to:

- Degrading traffic flow conditions resulting from unplanned events, unusual congestion zones, and other incidents.
- Adjust traffic signal timing to optimize traffic flow conditions for scheduled events and construction activities to support additional travel demands, lane reductions and/or diversions.
- Review roadway performance history for traffic signal retiming update needs assessment.
- Initiate timely repair of traffic signal facilities.

¹ Oct 1, 2013 Council Memo: <http://www.sanjoseca.gov/documentcenter/view/21620>

The TiMC Event Tracking System will direct staff to use available real time traffic congestion data from additional third party providers to stay attuned to traffic conditions, focus on roadways that need attention, and to coordinate traffic management services with other agencies and departments as necessary to minimize congestion and travel delay.

This project supports the Smart City Vision and is one of 21 priority projects on the Civic innovation roadmap focused on using technology and real time data to improve core service delivery, staff capacity, and roadway conditions.

ANALYSIS

Staff published a Request for Proposal (RFP) for a TiMC Event Tracking System through the City’s e-procurement system. A total of 137 companies viewed the RFP, and 14 companies participated in the pre-proposal conference, and six proposals were received as follows:

- Castle Rock Associates (Portland, OR)
- IBI Group (Toronto, Ontario, Canada)
- IBM (Sacramento, CA)
- IcX Transportation Group, Inc. (Berkeley, CA)
- Parsons Transportation Group, Inc. (La Palma, CA)
- TransCore ITS, LLC (San Diego, CA)

A seven-member evaluation team with representation from DOT, Santa Clara Valley Transportation Authority, and San José State University evaluated and scored the proposals pursuant to City procurement practices. Four proposers who earned the highest scores were subsequently invited for oral presentations and interviews.

The final scores for the four finalists are summarized below:

<u>Evaluation Category</u>	<u>Max Points</u>	<u>Castle Rock</u>	<u>IBM</u>	<u>Parsons</u>	<u>TransCore</u>
Experience	30	20	23	26	22
Technical: Hardware and System Requirements	25	21	22	21	18
Project Plan and Approach	40	32	31	35	28
Cost	5	4	3	5	5
TOTAL	100	77	79	87	73

Award Recommendation: The City recommends award of contract to Parsons to provide a TiMC Event Tracking System and all related professional services.

Parsons is the best value service provider for this project per the evaluation criteria set forth in the RFP and will help ensure the City has a robust and dynamic System to track and manage traffic-related events efficiently. Parsons’ solution was superior in the following key areas:

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- Established commercial off-the-shelf software that can be adapted with customizations to meet the City's functional requirements
- Strong project approach to software development and customization
- Solid experience in developing, integrating, and implementing traffic event management software systems in accordance with federal/state System Engineering guidelines.

Staff conducted reference checks with Caltrans, District 7 and the San Diego Association of Governments (SANDAG). Both references checked positive.

Local and Small Business Preference: This project is funded by a federal grant that prohibits the application of the City's Local and Small Business Preference.

Disadvantaged Business Enterprise (DBE) Program Requirements: As a recipient of federal grant funds, the City must comply with the requirements of Title 49 of the Code of Federal Regulations (CFR) Part 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 compete for federally funded transportation contracts.

In accordance with 49 CFR Part 26, the City's DBE Liaison Officer established a DBE goal of 12% for this project. Proposers were requested to make good faith efforts to meet the goal by seeking partnerships with certified-DBE firms for at least 12% of its total proposed project cost. Parsons met the DBE goal and committed to \$201,958 (12%) DBE participation.

Protest: The RFP process included a ten-day protest period that commenced when the City issued the Notice of Intended Award. No protests were received.

Summary of Proposed Agreement: The Agreement with Parsons includes fixed pricing for software licenses, software maintenance and support, and professional services for project management, software development, implementation, configuration and training for an initial twelve-year term. The Agreement includes a detailed scope of services, a general project plan, and a compensation schedule with milestone payments tied to the successful completion of key project deliverables.

The implementation period is estimated to take up to sixteen months, of which software development is expected to take eleven months. Unlike the traditional waterfall software development approach where the City identifies the detailed requirements up front and the vendor delivers upon those set requirements at one time, software development will be conducted utilizing a hybrid agile software development approach, where the City and Contractor agrees upon a general set of software requirements, but work together to further refine them in a series of "sprints." Each sprint is an iterative process between the Contractor and City where requirements are further developed, tested and accepted on an ongoing basis. Each sprint will be identified and paid for on a task order basis. After the final sprint, final system

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acceptance occurs, which is followed by a System warranty of 60 days. The warranty period may be reset and extended if the Contractor does resolve defects within 45 days.

After the implementation period, the System shall be supported by ongoing technical support and maintenance services for a subsequent ten-year period at fixed annual rates.

The Agreement includes provisions for additional or supplemental work during the initial term. For such work, the Contractor may request annual increase on its hourly rates, subject to the Consumer Price Index and not to exceed 3% annually.

The TiMC Event Tracking System will be installed on authorized computers and virtual network servers furnished by the City. The City will purchase required hardware and software under existing Citywide purchase orders.

Siemens Industry, Inc. will provide project management services to help implement the System, as provided for under a separate Council-approved consultant agreement².

EVALUATION AND FOLLOW-UP

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

PUBLIC OUTREACH

This memorandum will be posted on the City's website for the November 7, 2017 City Council meeting.

COORDINATION

This memorandum has been coordinated with the Department of Transportation, the Department of Public Works Office of Equality Assurance, 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.

² Dec 15, 2015 Council Memo: http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=1477&meta_id=546958

FISCAL/POLICY ALIGNMENT

This action is consistent with the City’s 2017-2018 Proposed Capital Budget City Service Areas Delivery Framework for Performance Driven Government for Transportation and Aviation Services: 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 \$1,678,351

2. COST ELEMENTS OF AGREEMENT/CONTRACT:

System Implementation Cost Elements (~ 16 months)

– Professional Services	
- Project Management	96,853
- Requirements Review	47,045
- Implementation and Configuration	51,813
- Software Development	928,908
- Deployment and Acceptance Testing	41,985
- Training and Documentation	61,437
– Software License (iNet, map license) & Virtual Server Support	\$196,420
Implementation Subtotal	\$1,424,461

Ongoing Support & Maintenance Services (post-implementation)

– Map Software License & Virtual Server Support (2 years)	49,900
– Support & Maintenance (\$18,000/year x 2.75% annual increase x 10 years)	203,990
Ongoing Support & Maintenance Subtotal	\$253,890

Contingency (@ ~ 17% of Implementation Subtotal) \$255,000

GRAND TOTAL \$1,933,351

3. SOURCE OF FUNDING:

- Fund 429 – Building and Structure Construction Tax Fund
- Fund 533 – General Purpose Parking Fund

4. FISCAL IMPACT: The proposed operating and maintenance costs of this project have been reviewed and will have no significant impact on the General Fund operating budget.

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BUDGET REFERENCE

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

Fund #	Appn # / RC#	Appn Name	Current Total Appn	Amt for Contract	2017-2018 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
429	4407	ITS: Transportation Incident Management Center	\$1,520,000	\$1,078,351	955	06/20/2017 Ord. No. 29962
533	7782	Greater Downtown Area Multi-Modal/Streetscape Improvements	\$2,100,000	\$600,000	902	06/20/2017 Ord. No. 29962
Total Funding				\$1,678,351		

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 questions, please contact Mark Giovannetti, Deputy Director of Finance at (408) 975-7052.