

**CITY COUNCIL AGENDA TOPIC**

Resolution rejecting the protest submitted by GridMatrix and authorizing execution of a Technical Services Agreement with Sierra Transportation Technologies, in an amount not to exceed \$500,000 plus all applicable taxes, to conduct video analytics and reporting on selected intersections in support of the Video Analytics Screening for Road Safety Audits project (part of CIP Plan No. PW-R-205).

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*Transportation Department*

**EXECUTIVE SUMMARY****ACTION**

This Resolution rejects the protest and authorizes execution of a Technical Services Agreement with Sierra Transportation Technologies in an amount not to exceed \$500,000, plus all applicable taxes, to conduct video analytics and reporting on selected intersections in support of the Video Analytics Screening for Road Safety Audits project.

**RECOMMENDATION**

Move to adopt Resolution No. 10524

**BACKGROUND/ANALYSIS**

On October 31, 2024, Bellevue was awarded a \$540,000 state grant funding to conduct “Video Analytics Screening for Road Safety Audits” from the Washington State Department of Transportation. This grant was accepted by Council on December 10, 2024 (Resolution No. 10452).

The intent of the grant is to implement network-wide traffic conflict screening programs using video analytics at controlled intersections with disproportionate numbers of traffic violations and injuries to active transportation users to reduce fatalities and serious injuries in accordance with Target Zero. Video analytics is a use of computer vision and artificial intelligence algorithms to process and analyze site specific video footage. This technology has opened a multitude of opportunities to improve safety measures, enhance roadway traffic management, and optimize traffic flow.

Awarding this consultant contract will support the City’s Video Analytics Screening for Road Safety Audits Project by funding collection of video analytics data to screen approximately 79 signalized intersections on 13.7 miles of Bellevue’s High Injury Network (HIN). Examples of the types of data collected include volumes (vehicles, pedestrians, and bicyclists), conflicts, red light violations, speed and more. These HIN roadways will be evaluated through the City’s Road Safety Audits (RSAs) funded through Bellevue’s Safe Access for Everyone (B-SAFE) project through the US Department of Transportation (USDOT) / Federal Highway Administration (FHWA) Safe Streets and Roads for All (SS4A) grant program (reference Bellevue Resolution No. 10425, passed on October 22, 2024).

Video analysis results are anticipated to provide answers to the following representative safety considerations:

- Road user classifications and counts: the evaluation of traffic flows for different road users by day and time of day and provide answers to questions like: Where and when are pedestrians most active? On which approach are bicyclists present?
- Average speeds and speed percentiles of road users: Are specific road users speeding? Are certain times of day worse than others? Is a particular approach or direction prone to speeding? Are speed differentials significant at certain intersections?
- Road user violations: Are there wrong way driving, U-turns, turning from an incorrect lane or similar unplanned actions? These insights will provide answers to questions like: Are pedestrians walking outside of marked crossings and committing spatial violations? What percentage of road users are speeding?
- Road user trajectories: Are cyclists and vehicles crossing paths on a regular basis? Are articulated trucks crossing the median or clipping the sidewalk? Are pedestrians using the crosswalks? Are cyclists staying in their designated cycle lanes?
- Conflict severity: Documentation of conflicts that are likely to lead to severe injuries and fatalities from those that are likely to lead to property damage only crashes.
- Risk profile benchmarking: Which signalized intersection is most risky for pedestrians? Which site has the greatest risk for motorcyclists?

Work on this project would be conducted from 2025 to 2026; access to data will continue into 2028.

### **Consultant Selection**

After evaluating the six consultant firms that responded to the City's Request for Proposals (RFP) No. 24125, Sierra Transportation Technologies was selected to be the City's consultant for this project. An RFP was published in general circulation newspapers (Seattle Times and Daily Journal of Commerce) for four consecutive weeks - 1/21/25, 1/28/25, 2/4/25, 2/11/25 and posted online at [publicpurchase.com](https://publicpurchase.com).

The following firms submitted proposals in response to RFP No. 24125:

- GridMatrix
- CelPlan
- Street Simplified
- AlWaysion
- Sierra Transportation Technologies
- Transoft Solutions

A City staff selection committee reviewed and ranked all proposals based on the evaluation criteria listed in the RFP. Sierra Transportation Technologies was selected due to their innovative, technically robust, and flexible approach to traffic safety analysis. Key reasons for this selection include continuous monitoring capability; comprehensive data collection; strong technical team; proven experience; flexible deployment options; well-defined team structure; detailed reporting and visualization.

On March 18, staff received a protest from GridMatrix alleging patent infringement by the selected proposer. Following a thorough review along with documentation provided by Sierra Transportation

Technologies and consideration of the contract's indemnification provisions, staff recommends proceeding with contract execution with Sierra Transportation Technologies.

## **POLICY & FISCAL IMPACTS**

### **Policy Impact**

The City Council Vision, which guides Bellevue's policy and budget, supports this work by identifying a "safe and efficient transportation system" as one of six strategic target areas. This target area reinforces the City's commitment to "eliminate fatal and serious injury collisions through the application of the Safe System Approach" (Objective 3.2, Bellevue City Council Vision).

Furthermore, this work is supported by the following policies in the Transportation Element of the Bellevue Comprehensive Plan:

- TR-31. Monitor and implement as appropriate, emerging technologies that are intended to improve mobility, safety, efficiency and people-moving capacity on existing and planned transportation network facilities.
- TR-58. Strive to eliminate traffic deaths and serious injuries on Bellevue streets by 2030 in accordance with the Vision Zero Strategic Plan.
- TR-59. Update Vision Zero Action Plans annually to systemically and holistically address safety challenges using the Safe System Approach.

### **Fiscal Impact**

This action obligates the City to an amount not to exceed \$500,000, plus all applicable taxes, to conduct video analytics and reporting on selected intersections in support of the Video Analytics Screening for Road Safety Audits project (CIP Plan No. PW-R-205).

## **OPTIONS**

1. Adopt the Resolution rejecting the protest submitted by GridMatrix and authorizing execution of a Technical Services Agreement with Sierra Transportation Technologies, in an amount not to exceed \$500,000 plus all applicable taxes, to conduct video analytics and reporting on selected intersections in support of the Video Analytics Screening for Road Safety Audits project (part of CIP Plan No. PW-R-205).
2. Do not adopt the Resolution and provide alternative direction to staff.

## **ATTACHMENTS**

- A. Vicinity Map
  - B. CIP Project Description (PW-R-205)
- Proposed Resolution No. 10524

## **AVAILABLE IN COUNCIL LIBRARY**

Technical Services Agreement (draft)