CITY OF EASTVALE

AGENDA STAFF REPORT

City Council/Eastvale Public Financing Authority Meeting
CONSENT CALENDAR
Agenda Item No. 11.8
August 13, 2025

Agreements for the Traffic Signal Synchronization Project along Hamner and Archibald Avenues

Prepared By:

Jimmy Chung, Public Works Director/City Engineer

Recommended Action(s)

Staff recommends that the City Council:

1. Approve the TUMF Reimbursement Agreement with WRCOG for the Planning, Engineering, Environmental, Project Management, and Construction for the Intelligent Transportation System (ITS) project along Archibald and Hamner Avenues in an amount of $4,482,000;
2. Approve a Professional Services Agreement with STC Traffic for the preparation of traffic signal synchronization plans, construction support, and signal timing services for the Traffic Signal Synchronization Project along Hamner and Archibald Avenues in a not-to-exceed amount of $347,160; and
3. Authorize the City Manager to execute all necessary documents including the agreements substantially in the forms attached hereto, provided that the Agreement with STC shall not be executed by the City Manager unless and until WRCOG approves and executes the TUMF Reimbursement Agreement.

Summary

The City of Eastvale is advancing its Traffic Signal Synchronization Program to improve traffic flow, reduce congestion, and enhance safety on key arterial corridors. Following the successful implementation along Limonite Avenue, the City is now extending synchronization efforts to Hamner Avenue and Archibald Avenue.

The scope of work includes synchronization of 22 signalized intersections, with an option to incorporate four additional intersections on Hamner Avenue pending further coordination with neighboring jurisdictions.

Included Intersections:

- Hamner Ave from Bellegrave Ave to Schleisman Rd (10 signals)
- Archibald Ave from Remington Ave to River Rd (12 signals)

Optional Additions (subject to coordination):

- Hamner Ave from Cantu Galleano Ranch Rd to Bellegrave Ave (3 signals): jointly owned by City of Eastvale and City of Ontario
- Hamner Ave at Citrus St (1 signal): owned and maintained by City of Norco

This Project represents a continued investment in smart infrastructure and supports the City's long-term mobility goals by building on the success of the Limonite Avenue corridor synchronization and extending coordination efforts to both Hamner Avenue and Archibald Avenue.

The primary scope of work includes, but is not limited to:

- Infrastructure & Upgrades – Evaluate and test existing fiber optic and signal infrastructure, install new fiber optic cable and communication equipment where needed, and upgrade traffic signal controllers and video detection systems.
- System Integration – Connect upgraded intersections to the City's traffic management system, including integration with existing network infrastructure and the Transparity platform.
- Traffic Signal Optimization – Conduct field observations and traffic data analysis, develop synchronized signal timing plans using Synchro software, and ensure timing strategies align with industry standards.
- Performance Evaluation – Measure system performance before and after implementation to assess improvements in travel time, traffic flow, and signal efficiency.

Background

Project Description

Traffic signal synchronization is a proven traffic engineering technique designed to optimize the flow of vehicles by coordinating green light timings across a series of intersections. This coordination significantly reduces unnecessary stops and delays, leading to multiple benefits including improved traffic flow, reduced fuel consumption, and a reduction in vehicle emissions. It also directly addresses driver frustration often caused by uncoordinated signals.

Building upon the City's implementation of traffic signal synchronization on Limonite Avenue, this project expands these improvements to Hamner Avenue and Archibald Avenue. The initiative involves integrating new ITS infrastructure, such as advanced fiber optic cable networks and advanced video detection systems. This integration will provide real-time traffic data and improve operational efficiency across Eastvale's major corridors.

Funding Agreement with WRCOG

On August 4, 2025, WRCOG's Board approved the TUMF 2024 Northwest Zone 5-Year Transportation Improvement Program (TIP). The TUMF Northwest Zone Transportation Improvement Program (TIP) allocates TUMF funding to the agencies within the Northwest Zone for TUMF Network improvements. Fiscal Year 2025/2026 included new projects including Intelligent Transportation Systems (ITS) along Hamner and Archibald Avenues. If approved by City Council, the WRCOG agreement to approve the use of available funds will go to the WRCOG's Board meeting on September 8, 2025 for approval.

Professional Services Agreement with STC Traffic

STC Traffic (STC) will develop Plans, Specifications, and Estimates (PS&E) for the installation of Intelligent Transportation Systems (ITS) infrastructure, implement system integration, and establish timing and coordination plans for the communication systems and traffic signal operations along both Hamner and Archibald Avenues. These improvements will enable real-time communication between signals and improve operational efficiency across Eastvale's major corridors. STC brings extensive field experience and technical expertise in traffic engineering design and transportation planning. Notably, STC successfully led the traffic signal synchronization project on Limonite Avenue, delivering the project on time and within budget.

Once the synchronization infrastructure is installed, traffic operations will be analyzed, collect detailed field data, and develop optimized traffic signal timing plans for all integrated intersections. The subsequent implementation phase will include monitoring and fine-tuning to ensure effective communication and performance across the corridors. By implementing advanced technology and data-driven traffic management, the Hamner Avenue and Archibald Avenue Traffic Signal Synchronization Project is expected to significantly reduce congestion and improve overall traffic flow throughout Eastvale.

Environmental

Approval of the agreement is categorically exempt from the California Environment Quality Act (CEQA) review under the CEQA Guidelines Section 15303.

Strategic Plan Action - Priority Level: 2 | Target #: E | Goal #: F

Improve traffic mobility and management throughout the City's key corridors

Fiscal Impact

Total fiscal impact is $347,160. Sufficient funding is available in FY25/26 under Capital Improvement Plan Project No. 94006 for the Citywide Traffic Signal Synchronization Project - Arterials, within the Transportation Uniform Mitigation Fee (TUMF) account (270-510-6660-94006).

Prior City Council/Commission Action

On March 23, 2022, City Council approved awarding a Professional Services Agreement to STC Traffic for the Limonite Avenue Traffic Signal Synchronization Project to improve traffic flow.

Attachment(s)

Attachment 1 - TUMF Reimbursement Agreement with WRCOG
Attachment 2. 1 - PSA with STC Traffic
Attachment 2.2 - Exhibit A to PSA