

## 2024 COUNCIL IMPACT AWARD: TROY A. PEOPLES AWARD

### Regional Transportation Commission of Southern Nevada's Freeway and Arterial System of Transportation for its Symmetric Grid Signal Timing Method



ITE—A Community of Transportation Professionals is pleased to announce that the **Regional Transportation Commission of Southern Nevada's Freeway and Arterial System of Transportation (RTC-FAST)** has been awarded a [2024 Council Impact Award – Troy A. Peoples Award](#). This accolade recognizes outstanding contributions to the transportation

engineering and planning profession through RTC-FAST's innovative "Symmetric Grid" signal timing method.

The Troy A. Peoples Award is given to an individual or organization who is recognized as a leader in the field of traffic engineering through their involvement with innovative activities, professional organizations, the community, or the performance of traffic engineering. It honors the legacy of Troy A. Peoples, P.E., a renowned expert in Transportation Engineering and Life Member of ITE who was an innovator, leader, and mentor throughout his long career.

**Revolutionizing Traffic Signal Coordination.** RTC-FAST has developed and implemented the "Symmetric Grid" signal timing method in the Las Vegas Metropolitan Area. This method, which was applied across over 600 signals within extensive grid networks, has yielded phenomenal improvements in travel speeds, safety, and travel time reliability. By achieving four-way progression and optimizing the entire network rather than individual corridors, this innovative approach has reduced travel times by 15-25% and harmonized vehicle speeds, significantly enhancing roadway safety.

**Leveraging Advanced Technologies.** The success of the "Symmetric Grid" method is further amplified by RTC-FAST's use of cutting-edge Transportation Systems Management and Operations (TSMO) and Intelligent Transportation Systems (ITS) technologies. By enhancing the UDOT open-source Automated Traffic Signal Performance Measures (ATSPM) system, RTC-FAST developed unique features that streamlined the implementation and evaluation process. These tools allowed for real-time traffic management and facilitated a seamless and rapid deployment of the signal timing plan.

**Community Engagement and Educational Outreach.** RTC-FAST's commitment to the community extends beyond technical achievements. They have actively engaged in educational programming, providing guest lectures at the University of Nevada, Las Vegas (UNLV) and involving students in real-world signal timing

projects. Their outreach efforts ensure that the next generation of transportation professionals is equipped with practical knowledge and experience.

**Dedication to Diversity, Equity, and Inclusion.** The "Symmetric Grid" signal timing project emphasizes equity by ensuring that all road users, including pedestrians and public transit riders, benefit from the improved traffic flow. RTC-FAST's approach to signal timing not only enhances mobility but also supports safe and efficient transportation for all community members.

One year after implementation and evaluation, RTC-FAST is thrilled with the effectiveness of the signal coordination for this large-scale grid roadway network. The method has yielded vast, noticeable improvements for controlling travel speeds, safety, and travel-time reliability for all the major corridors in Las Vegas.

**Acknowledgements.** Congratulations to the talented team at **RTC-FAST**, pictured below (*from left*): **Gang Xie, P.E., (M)**, Sr. Project Engineer; **Luis Valenzuela**, Sr. Traffic Signal Technician; and **Jose Rodriguez**, Sr. Traffic Signal Technician.

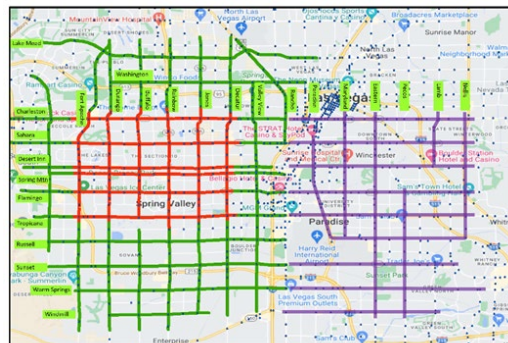
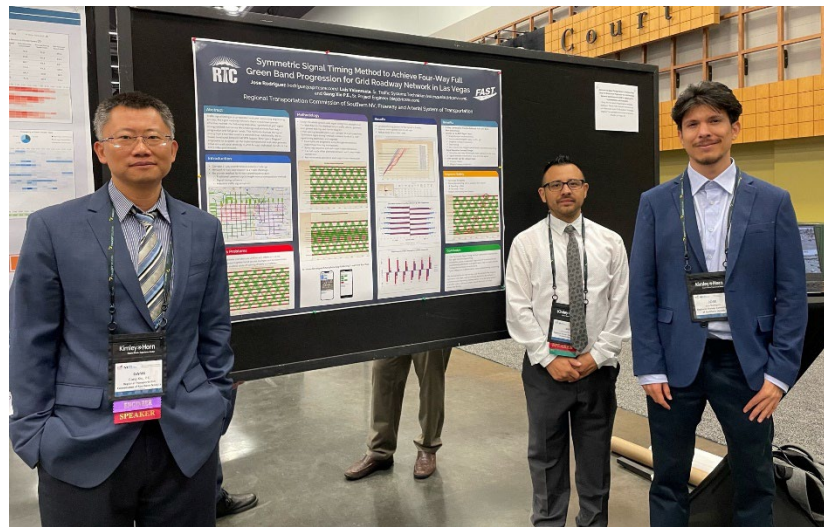


Figure-1 "Symmetric Signal Timing" Method Applied to Grid Roadway Network

Click [here](#) for more information on ITE's Awards Program and to see the other 2024 award recipients.