TECHNOLOGY AND TRAFFIC OPERATIONS

What We've Heard

Community Focus Groups shared the following input:

- Retiming traffic signals to improve traffic flow during peak periods is a priority.
- Retiming traffic signals to reduce speeding during offpeak periods is also a priority.

The technical analysis showed that:

- Most traffic signals within the corridor are not equipped to provide coordinated signals across city/jurisdiction boundaries.
- Most traffic signals within the corridor do not have video detection for vehicles and bicyclists.
- Increased traffic growth is projected to occur throughout the corridor.
- Connected vehicle technology has the potential to improve safety.

Vehicle to vehicle communication - enables vehicles to exchange information about their speed, and location. This technology would help vehicles and drivers avoid collisions.

Improved Safety and Collision Avoidance



Connected Vehicle Technology for Improved Transit



Source: USDOT

Vision for the Future - 2040

The long-term vision for the corridor accommodates potential technology advances related to connected vehicles. Connected vehicles refer to the ability of cars to "talk" to roadway infrastructure and/or other vehicles.

Vehicle to infrastructure communication – allows vehicles to share information with roadway infrastructure such as cameras, traffic lights, lane markers, signage, and parking meters. Examples include the following:

- In-vehicle speed limit alerts
- Roadway hazard warnings (e.g., lane closures and construction)
- Parking availability and electronic payment
- For buses, vehicle to infrastructure communication can allow buses to operate more efficiently.

Adaptive Signal Control (Hayward and Alameda County) – Adaptive signal systems use real-time traffic information from video cameras or road sensors to determine when a traffic light should be red or green. These systems exist in several areas of the corridor and are being added as part of corridor projects in Hayward and Alameda County.

Source: www.extremetech.com









What's Happening Soon?

Fremont Blvd. Safe and Smart Corridor – This project uses technology and new innovation opportunities to move traffic efficiently and improve safety and circulation for pedestrians, bicyclists, and transit users. www.fremontsmartcorridor.org

Pedestrian Detection (San Leandro and Fremont) – Caltrans is in the process of completing pedestrian signal improvements along E. 14th St. in San Leandro and Mission Blvd. in Fremont. Pedestrian detection currently exists at many signals along the corridor.

Fremont Blvd. Safe and Smart Corridor Project

Source: City of Fremont