

Alameda County, CA I-580 HOV Lane Corridor Study



PROJECT OWNER:

Alameda County
Congestion Management Agency

PROJECT DATE(S):

2006 - 2009

TJKM CLIENT REFERENCE:

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TJKM FEE:

\$70K

PROJECT DESCRIPTION:

TJKM conducted the traffic forecasting and prepared the Operations Analysis Report for the I-580 Westbound High Occupancy Vehicle (HOV) Lane Corridor Study. TJKM's in-depth study analyzed Existing Conditions and the potential benefits and impacts of implementing a proposed HOV lane on I-580 westbound from the Greenville Road Interchange (Post Mile R8.29) to the Foothill Road/San Ramon Road Interchange (Post Mile R21.43) in Alameda County, and its impacts on parallel transportation network. The project included analysis of ramp metering to maximize and balance the flow of vehicles throughout the corridor, and identified potential funding for equipment for the westbound on-ramps within the project limits that were not already ramp metered. The overall objective of the project was to:

- Reduce congestion and delay during the peak periods
- Increase the capacity for person trips in the corridor by increasing the proportion of people in HOVs and transit
- Support regional air quality attainment goals
- Improve safety for motorists and Caltrans maintenance workers

TJKM examined the westbound HOV lane project, including existing and future (design year 2030) traffic volumes and patterns, vehicle occupancy, travel times, and speeds. Analysis results indicated that the project has major and significant benefits to the entire westbound I-580 corridor system. TJKM's analysis found that during the AM peak hour, the project would increase vehicle miles of travel by 13 percent and passenger miles of travel by 15 percent, and westbound speeds would increase overall by nearly double (98 percent). The project would meet the purposes described above in the following ways:

- Provide westbound freeway congestion relief by providing HOV lanes for a high level of travel service to carpoolers and transit riders along with auxiliary lanes to improve traffic flow and weaving operations
- Encourage carpooling and use of transit by offering HOV lanes
- Increase actual westbound freeway capacity by consolidating travelers into fewer vehicles
- Provide wider paved shoulders for disabled and emergency vehicles and a paved median for improved maintenance activities with California Highway Patrol enforcement areas where feasible

