

# Highway 1 HOV Lane Project

## PROJECT ALTERNATIVES

### Project Alternatives Under Evaluation

#### 1. NO-BUILD ALTERNATIVE

Maintenance of the existing highway would continue in the project area, and related projects on Highway 1 would still be built if approved and funded, including:

- Merge lanes to ease congestion at the Highway 1/State Route 17 Interchange – *completed*
- Auxiliary lanes between Soquel Avenue and Morrissey Boulevard funded by the 2006 Corridor Mobility Improvement Account (CMIA) – *proposed 2012*

#### 2. TRANSPORTATION SYSTEM MANAGEMENT (TSM)

This alternative would provide ramp metering and auxiliary lanes between on and off ramps to facilitate weaving movements of traffic entering and exiting the freeway without requiring reconstruction of the interchange structures. This alternative would also widen on ramps, but would not include high occupancy vehicle (HOV) lanes.

#### 3. HIGH OCCUPANCY VEHICLE LANES (HOV)

HOV lanes (aka carpool or diamond lanes) are freeway lanes that are restricted to vehicles carrying two or more people including buses and emergency vehicles, during designated times of the day, usually during peak periods.

This alternative includes all of the elements in the TSM Alternative and construction of HOV lanes in the northbound and southbound directions. Interchanges and overcrossings requiring reconstruction would be analyzed to serve future local through traffic demand and access to/from the highway. Freeway ramps will be designed to provide for California Highway Patrol (CHP) enforcement areas. Reduced shoulder and/or median widths will be considered where possible to minimize the cost, "footprints," and environmental impacts of the project.

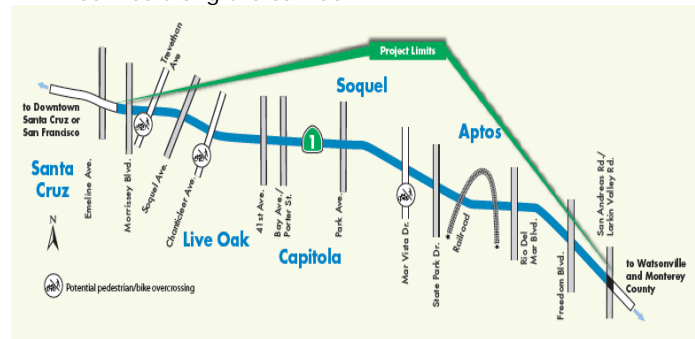
### Design Options

The build alternatives share these features:

- Auxiliary lanes as needed to help traffic merge on and off the highway between ramps
- Ramp metering at interchanges to control the flow of traffic onto the highway during peak periods
- Reconstruction and modification of interchanges as required
- Retaining walls at appropriate locations to minimize right-of-way acquisition
- Soundwalls where appropriate to minimize highway noise, while maintaining safety and aesthetic considerations
- New crossings for bicyclists and pedestrians at Mar Vista Drive, Chanticleer Avenue, and Trevethan Avenue
- Transportation Operations Systems with changeable message signs, radios advisories and highway conditions, closed-circuit television, and vehicle detection systems

The following features will be further studied for possible inclusion in the build alternatives:

- Park and Ride lot enhancements or additions considered throughout the corridor
- Transit Market Analysis to evaluate the effectiveness of each alternative in supporting and enhancing transit service along the corridor.



### Alternatives considered but not recommended for further development

Other concepts have been discussed but were not recommended for further development based on technical considerations, commission actions, and community input solicited to date:

- Urban Interchanges are localized configurations of interchanges that are significantly more massive in structural design than other alternatives. These interchanges have significant aesthetic and cost implications, and are not considered 'friendly' for bicyclists and pedestrians.
- An Eight Lane Facility (including four through lanes and an auxiliary lane in each direction) would expand the project footprint beyond that proposed for the HOV lane widening. This alternative would significantly expand the environmental impacts, right-of-way needs, and project cost.
- The Mixed Flow Widening alternative does not meet the purpose and need statement, as an additional mixed flow lane would not encourage carpooling and transit modes of travel.
- Direct Bus Ramps To/From the HOV lanes would involve significant additional costs for the ramp structures, operational issues on local roads, and potentially additional environmental impacts caused by an increased project footprint.