



**April 18, 2011**

**To:** Highways Committee *Will Kempton*  
**From:** Will Kempton, Chief Executive Officer  
**Subject:** Report on Phase II Feasibility Study - Traffic and Revenue Analysis for the San Diego Freeway (Interstate 405) Improvement Project Between Costa Mesa Freeway (State Route 55) and San Gabriel River Freeway (Interstate 605)

### **Overview**

Project development and environmental clearance work is underway on the San Diego Freeway (Interstate 405) Improvement Project between the Costa Mesa Freeway (State Route 55) and the San Gabriel River Freeway (Interstate 605). Three alternatives are being considered, including the use of tolled express lanes. A Phase II feasibility study for the San Diego Freeway (Interstate 405) Improvement Project has been completed which provides an updated traffic and revenue analysis for the Express Lanes Alternative. While additional Measure M2 revenue has been identified for the projects based in part on bid savings and an uptick in sales tax receipts, the findings of the Phase II feasibility study indicate that projected revenues for the Express Lanes Alternative have been conservatively reduced since the Phase I feasibility study. Further study is recommended to assess the project's financial viability, funding alternatives, and methods available to leverage additional funding.

### **Recommendation**

Direct staff to evaluate alternative funding and delivery methods to further assess the financial feasibility of the San Diego Freeway (Interstate 405) Improvement Project Express Lanes Alternative.

### **Discussion**

The San Diego Freeway (Interstate 405) Improvement Project proposes to add new lanes to the Interstate 405 between the Costa Mesa Freeway (State Route 55) and the San Gabriel River Freeway (Interstate 605), generally within the existing right-of-way.

Project development and environmental clearance work is underway. Three alternatives are being considered. Alternative 1 proposes to add a single general purpose lane in each direction, and Alternative 2 proposes to add dual general purpose lanes in each direction. Alternative 3, the Express Lanes Alternative, would add a single general purpose lane and one express lane in each direction. The new express lane and existing high-occupancy vehicle (HOV) lane would be operated as a two-lane express lane facility in each direction.

A preliminary traffic and revenue (Phase I) study for Alternative 3 was provided to the Orange County Transportation Authority (OCTA) Board of Directors (Board) on February 1, 2010. The Phase I report projected an annual revenue of \$197 million for the option where HOVs with three or more occupants ride free and all others would be tolled. Based on this analysis, it appeared that Alternative 3 was financially feasible, assuming a conversion to a HOV+3 operation.

A Phase II feasibility study for traffic and revenue analysis has been prepared to further evaluate the potential of Alternative 3 to generate revenue. The results show the option where HOVs with three or more occupants riding free would generate annual revenue of \$76 million. The Phase II traffic and revenue forecast is generally very conservative. The Phase II study utilized an adjusted version of the Orange County Transportation Analysis Model (OCTAM). The OCTAM was adjusted to account for more conservative socio-economic forecasts and updated transportation networks. Staff believes the forecast reflects only a temporary downturn in long-term growth and does not account for the additional benefits of dynamic tolling and off-peak use. Should Alternative 3 be selected as the locally preferred alternative in the future, a more comprehensive Phase III investment grade study would be conducted.

Current engineering studies show that the projected cost of Alternative 1, adding a single general purpose lane in each direction, is \$1.3 billion; Alternative 2, adding dual general purpose lanes in each direction, is \$1.4 billion, and; Alternative 3, adding a single general purpose lane and one express lane in each direction, is \$1.7 billion. These figures have been updated based on the latest preliminary engineering and represent year-of-expenditure dollars, assuming construction begins in year 2013 and the project delivery method is design-build.

The Measure M2 (M2) revenues for this project are currently estimated to be \$600 million over the life of the M2 program. The Alternative 1 single general purpose lane and Alternative 2 dual general purpose lanes have additional

funding needs of \$700 million and \$800 million, respectively. Additional funding for Alternatives 1 and 2 has not been identified. All three of the project alternatives may become more financially viable as the economy improves and M2 revenues identified for the project increase.

Comparatively, the conservative Phase II toll revenue projections for Alternative 3 support a construction bonding capacity of approximately \$480 million, which would leave an additional funding need of \$620 million. Further exploration of various funding alternatives and delivery methods would inform OCTA of the potential to reduce the funding need. Refinements in the traffic and revenue model and analysis of alternate financing and delivery methods could provide additional funding benefits to show Alternative 3 as financially feasible.

#### Next Steps

The goal of the project is to proceed immediately into the implementation phase once the notice of determination/record of decision for the environmental impact report/environmental impact statement (EIR/EIS) is approved, which is currently scheduled for late 2012. To maintain this schedule, staff proposes that OCTA begin exploring various funding and delivery methods which may bring added value to support the development of the project's three alternatives. This will include production of a public sector comparator analysis of the project alternatives to provide a qualitative and quantitative assessment of construction estimates, risk, and cost to finance.

Staff is recommending further study to look at a more thorough representation and distribution of the value of time on traffic, a more detailed representation of travel time savings than what is calculated using the OCTAM travel demand model, effects of a dynamic tolling structure, and financial mechanisms to leverage additional funding, including private funding, to advance the project. On Board approval, staff will employ a strategic financial and delivery advisor to help explore various alternative funding and delivery methods for the project.

All three build alternatives will continue to be evaluated during the environmental process. Public review of the draft EIR/EIS is scheduled for late 2011. Staff will present a summary of the draft EIR/EIS to the Board before its release for public review. Upon completion of the public review and comment period, staff will bring all three alternatives, coupled with the information developed on funding alternatives and delivery methods, to the Board for a decision on a locally preferred alternative. The final EIR/EIS will be prepared based on this recommendation.

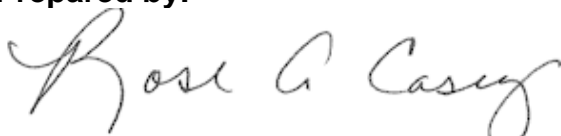
***Summary***

Staff requests Board direction on exploring alternative funding and delivery methods to further assess the financial feasibility of the Interstate 405 project before selection of a locally preferred alternative.

***Attachment***

None.

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