91 Express Lanes Model Update

2006 State Route 91 Implementation Plan

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Vollmer Associates LLP is now Stantec Inc.

- Stantec Inc. completed the acquisition of Vollmer Associates LLP on April 2, 2007

- Our 30-year history of providing toll consulting services throughout the world continues with Stantec, a global publicly traded company with more than 100 offices in North America and a significant presence in California.
Overview

- Historical traffic in the SR-91 corridor
- Traffic and gross potential revenue on the 91 Express Lanes
- Comparison of October 2003 forecast traffic and gross potential revenue to actual data
- Discussion of key changes to the 91 Express Lanes traffic and revenue model
- 91 Express Lanes future scenarios
- Forecast traffic and gross potential revenue for future scenarios
Study Area

The SR-91 Corridor acts as a land-bridge connecting Orange and Riverside County.
SR-91 Historical Average Daily Traffic

Corridor traffic growth has continued since 2002.
91 Express Lanes traffic growth has significantly outstripped corridor traffic growth.
91 Express Lanes Historical Traffic and Revenue

With increasing traffic, gross potential revenue has increased at relatively high rates.
91 Express Lanes Weekly Traffic and Revenue

Growth in traffic and gross potential revenue occur throughout the year.

![Traffic and Revenue Diagram]
91 Express Lanes Hourly Traffic

While peak hour traffic growth have slowed somewhat, off-peak and “shoulder” period traffic have grown dramatically.
91 Express Lanes Eastbound Wednesday Tolls

Peak hour tolls have increased following the Toll Policy.

![Graph showing toll changes over time]
The increasing non-peak traffic growth and higher than projected toll rates have pushed traffic and revenue above projections.
91 Express Lanes Projected Tolls vs. Actual Tolls

Toll rates have increased faster than projected.
Traffic and Revenue Model: Market Share Curves

Market share curves have been rebuilt to reflect the higher than anticipated acceptance of the 91 Express Lanes.
Traffic and Revenue Model: Hourly Traffic Profile

Global (general purpose and 91 Express Lanes) daily traffic has been redistributed to reflect higher non-peak period demand.
The SR-91 corridor consists of the 91 Express Lanes, HOV-3+ lanes east of the County Line, and congested general purpose lanes.
91 Express Lanes Proposed Configurations: Baseline Scenario by 2025

The 2006 State Route 91 Implementation Plan would add one general purpose lane per direction to SR-91 between SR-55 and I-15. The “Baseline” scenario would leave the 91 Express Lanes unchanged.
91 Express Lanes Proposed Configurations: Scenario 2 – Extension as Reversible Express Lanes

Scenario 2 assumes that the 91 Express Lanes will be extended from the County Line to I-15 as reversible express lanes. The extension will operate westbound in the morning and eastbound in the afternoon.
91 Express Lanes Proposed Configurations: Scenario 3 – Extension as Full Express Lanes

Scenario 3 assumes that the 91 Express Lanes are extended into Riverside County as two-lane per direction express lanes. The proposed 91 Express Lanes connection with SR-241 scheduled for year 2030 creates a lane imbalance.
Scenario 3b eliminates the lane imbalance by allowing 91 Express Lanes motorists to access SR-71.
Traffic and gross potential revenue declines in years 2011, 2015, and 2020 because general purpose lane improvements reduce corridor congestion.
Building reversible express lanes in Riverside County is projected to result in 91 Express Lanes gross potential revenue 0.5% lower than under the baseline scenario.
Scenario 3 is not operationally feasible because of the lane imbalance between SR-241 and SR-71.
Building full express lanes in Riverside County is projected to result in 91 Express Lanes gross potential revenue that is 0.9% higher than under the baseline scenario.