

GREENER HIGHWAYS

The Concrete Alternative

Heavy trucks use between 0.8% and 6.9% less fuel when traveling on a concrete pavement versus an asphalt pavement. These fuel savings lead directly to a reduction in greenhouse gas emissions and air pollutants.

See reverse for specifics on potential losses if a small portion of I-5 along Solana Beach is switched to asphalt >>>



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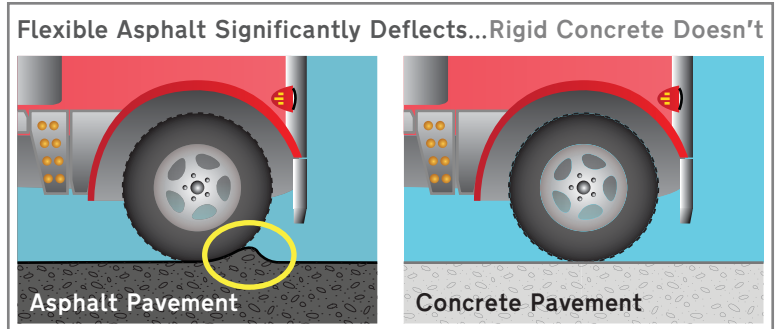
Fuel savings and reduced emissions translate into real opportunities for keeping a short segment of I-5 green >>>

An Environmentally Friendly I-5

Highway agencies can realize significant economic and environmental benefits for the public during highway improvements with concrete pavements. Concrete's low pavement deflection reduces truck fuel consumption rates compared to asphalt surfaces. These reduced consumption rates translate into direct dollar savings as well as reductions in various engine pollutants.

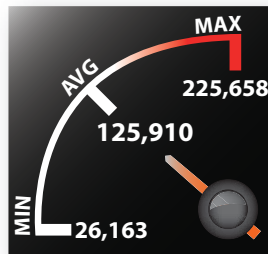
The results for the short segment of I-5 from Via de la Valle to Manchester Ave. present a compelling case. The charts below show a range of potential annual fuel savings and reductions in pollutant emissions that can be achieved if this I-5 corridor remains concrete, rather than switching to asphalt.

The case study is based on results from a study performed by the National Research Council of Canada's (NRC's) Centre for Surface Transportation Technology (CSTT) in January 2006. The research concluded that trucks use up to 6.9% less fuel on rigid concrete pavements than flexible asphalt pavements, due to concrete's lower pavement deflection.

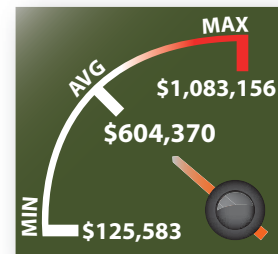


Annual Impact of Keeping the 2.2 miles of I-5 from Via de la Valle to the Manchester Ave. Concrete instead of Overlaying it with Asphalt

Economical Impact



Fuel Savings (gallons/year)

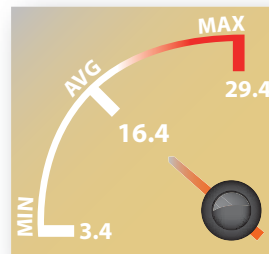


Dollar Savings (U.S. dollars/year)

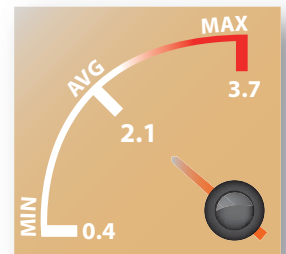
Environmental Impact



CO₂ Reductions (tons/year)



NO_x Reductions (tons/year)



SO₂ Reductions (tons/year)

References: EPA 420-F-05-001, February 2005. NRC-Canada, CSTT-HVC-TR-068. Taylor and Patten, January 2006.

Assumptions: Traffic volume of 224,000 vehicles per day with 10% trucks, truck fuel mileage of 5.5 miles/gallon, and a local diesel fuel price of \$4.80/gallon.