



Fact Sheet on Bridge Safety

"Californians need not be concerned about the safety of our bridges in the state. Caltrans has an active inspection program and the best trained engineers, inspectors and best equipment of any place in the world."

Doug Failing, District 7 Director, California Department of Transportation, Los Angeles and Ventura Counties

Structural Maintenance

- The California Department of Transportation's (Caltrans) statewide budget for structural maintenance has more than doubled in the past 3 years: \$66.4 million in 2004/05 to \$134.6 million in 2006/07. This includes state operations, inspections, bridge repair and preservation projects. The inspection portion of the budget is \$15 million.
- There are 1,700 bridges within the State identified as "structurally deficient," meaning that the bridge needs paint (about 90% of instances), deck pothole repair, or bridge rails need replacement or erosion exists around the foundation.
- In 2007, the health of Caltrans' bridges is ranked 7th in the United States by the Federal Highway Administration (FHWA).

Caltrans (Los Angeles and Ventura Counties) District 7

- There are 2,362 bridges on the State Highway system in Los Angeles and Ventura Counties.
- Most bridges in the District are continuous span bridges over a street or freeway.
- None of these bridges has strength or structural integrity issues.
- If Caltrans suspects or knows that a bridge is not safe, the Department will close the structure immediately.
- The District has one steel truss bridge, the San Gabriel River Bridge, similar to the I-35W bridge in Minneapolis. It is located in Azusa, Los Angeles County, on State Route 39 over the San Gabriel River, three miles north of SR-210. Built in 1933, it is in good structural condition. This bridge had a complete inspection June 20, 2006 and again on August 2, 2007, in accordance with the FHWA, due to its similarity to the I-35W Bridge. The recent inspection found no changes in the bridge's condition.

Bridge Inspections

- Caltrans is one of few state departments of transportation where licensed civil engineers inspect bridges.
- In the past 10 years, the number of statewide bridge inspectors and divers has doubled: from 38 in 1997 to 76 in 2007.
- Every bridge under the State's jurisdiction is inspected at least once every two years.
- Bridges are inspected visually; visual inspection is an effective means of evaluating the condition of bridges.
- To supplement visual inspections, Caltrans utilizes non-invasive methods such as gamma radiation along with a number of devices such as acoustic emission, magnetic particle, ultrasonic and dye penetrant testing. Other high-tech devices include borescopes, pole cameras, pacometers, lasers, and thickness gages.
- Depending on size and complexity, bridge inspections can take a month; inspectors can evaluate 7-10 smaller bridges in 1 day.
- Caltrans inspects a majority of locally-owned (city & county) bridges that are not part of the State Highway system.
- Statewide, most funding for state bridge preservation and rehabilitation contracts comes through either State Highway Operations and Protection Program (SHOPP) or Highway Maintenance (HM3) funds.

Seismic Retrofit

- Funds have been made available through Proposition 1B for seismic retrofit.
- The seismic retrofit program is ongoing; Caltrans continuously analyzes and strengthens bridges if needed.
- Caltrans had a two-phase seismic retrofit program. The initial phase was post-Sylmar earthquake, about 1,100 bridges were retrofitted. Phase II, after the Loma Prieta earthquake, was accelerated after the Northridge earthquake, when about 1,400 more bridges were retrofitted.
- The seismic retrofit of the Vincent Thomas Bridge (SR-47), located in the Port of Los Angeles, was completed in 1997. It is a suspension span bridge strengthened with shock absorbers to control movement. Due to age, as well as wear and tear from daily heavy port traffic, the bridge decking will be resurfaced beginning winter '07 with an estimated completion in Spring '09.

Aging Bridges

- Aging bridges are an issue, but old doesn't mean unsafe; many bridges and roads were designed for a 60-100 year life span.
- Past generations made a huge investment in California's transportation system and infrastructure and it is important that this investment be maintained.
- By working with the university system and the asphalt paving, concrete and steel institutes, Caltrans can develop new and better ways to rehabilitate roadways and bridges under today's traffic loads with the most effective and efficient methods.
- Caltrans will replace the Schuyler Heim Bridge, located in the Port of Long Beach Terminal Island, from a lift bridge to a fixed-span bridge structure. Construction is scheduled to begin in 2009. Additionally, Caltrans has scheduled an interim retrofit in 2008 to strengthen the bridge approaches. This bridge was built by the U.S. Navy in late 1940s.

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