



By Dennis Heckman
Contributing Author

Voter blowout

MoDOT budget in jeopardy after ballot measure fails

With thousands of bridges, including 53 that cross the Mississippi and Missouri rivers, the Missouri Department of Transportation (MoDOT) will always need to invest in maintenance, repair and replacement of these critical pieces of the state's transportation infrastructure.

Simply because of age, about 100 bridges fall into the deficient category each year. To counter that requires continuous investment to rehabilitate and replace structures in concert with an aggressive preventive maintenance (flushing, deck sealing, painting, etc.) and inspection program.

MoDOT has made significant progress over the last decade in driving down its inventory of deficient bridges from 3,000 in 2003 to about 2,000 in 2013. This feat was accomplished through a significant annual investment as part of the Statewide Transportation Improvement Program and with the innovative Safe & Sound Bridge Improvement Program.

of deficient bridges will grow over the next 10 years, erasing the progress we've already made.

That's largely because of a plummeting construction budget that is reflective of the diminishing revenue stream that is generated by fuel taxes, and because of bond repayments that fueled more than \$2 billion worth of transportation improvements from 2005-2010. In 2009, we were spending \$1.3 billion on construction awards. Today, we're at about \$700 million, and by 2017 our awards will drop to \$325 million annually. By 2020, we'll be unable to match federal funds.

Ironically, within the first two weeks following the election, regular inspections turned up defects that closed three bridges.

We know that it takes \$485 million per year to maintain our system in the condition it is in today. When we fall below that, obviously our system will deteriorate.

We've had a robust discussion about transportation in our state for the last several years, with recognition that additional transportation investment is needed. That led to passage of a joint resolution in the Missouri General Assembly last spring that placed Constitutional Amendment 7 on the August ballot. Amendment 7 would have generated \$540 million per year for 10 years for transportation projects through a ¾-cent increase in the state sales tax. It failed by a 60-40 margin.

Because of that defeat, the stark reality for bridges is that more of them will be weight-restricted, some will need to be closed and the economic vitality of our state and mobility of our citizens will be compromised. Some 400 bridges were targeted for replacement with Amendment 7 revenue.

Ironically, within the first two weeks following the August election, regular inspections turned up defects that resulted in the immediate closure of three bridges in Kansas City, St. Louis and the southeast part of the state. Without a funding solution, this situation could become commonplace. **R&B**

State Bridges

Total number: 24,350

Structurally deficient: 3,357

Functionally obsolete: 3,276

Source: FHWA

The \$685 million Safe & Sound program replaced 554 bridges through a design-build contract with KTU Constructors and rehabbed another 248 structures through a modified design-bid-build delivery system that awarded packages of bridges based on type, size or location. Envisioned as a five-year program when it began in 2009, it was completed by November 2012—nearly two years ahead of schedule. It also demonstrated that by collaborating with local communities and being flexible with regard to the construction schedule, full bridge closures could be successfully employed to speed construction and to save money. The average Safe & Sound bridge was completed in 42 days, about half what a typical bridge replacement requires. By concentrating the work on the bridges and not the adjoining roadways, the maximum number of structures was able to be improved.

Unfortunately, the progress we made in recent years is likely to be short-lived. Our projection is that without significant new revenue, Missouri's number

Heckman is a state bridge engineer with the Missouri Department of Transportation.

For more information about this topic, check out the Bridge Rescue channel at www.bridgerescue.com.