Bridging Partnerships: How Four States Found Funds to Build

By Sean Slone [1]
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In February 2016, Rhode Island Gov. Gina Raimondo signed into law a plan to spend $4.8 billion on state infrastructure over the next 10 years. RhodeWorks, as the plan is known, received significant attention for including a new funding mechanism—tolls on heavy commercial trucks—and a focus on bringing the state’s aging bridges up to snuff.

But Rhode Island Department of Transportation Director Peter Alviti said RhodeWorks was about much more than either of those two things.

“The RhodeWorks legislation was a very comprehensive remake of the Rhode Island DOT and our transportation infrastructure that included everything from getting the bridges from the worst in the country over a 10-year period to a state of sufficiency to getting our roadways, transit, trains, the existing infrastructure all in a state of good repair over that 10-year period,” he said.

Nevertheless, it was the innovations in both the bridge program and the truck tolls that garnered much of the attention. For the bridge program, Alviti’s department opted for an approach requiring restraint and patience, two things that he says are often in short supply in political bodies.

“We took an asset management approach, where we looked at not only the bridges that are currently structurally deficient but the whole lifecycle and the useful life curve that determines how much it’s going to cost to repair or rehabilitate various bridges across the state to fix them before they get to the point where they have to be reconstructed, where the construction cost may be four or five times what it costs for rehabilitation now,” Alviti said.

For the truck tolling operation, Rhode Island issued a request for proposals and received proposals from six competitors seeking to design, build and maintain the operation for a period of 10 years with five-year optional renewal periods after that. The Rhode Island DOT is expected to choose one of the competitors this May. The tolling will take place at 14 locations along Rhode Island’s interstates and is expected to generate the additional funding transportation officials said was needed to do the work.

“We did the modeling of what the program would need to be (for) the mission of attaining sufficiency and then we took the existing funding that we had, put it up against that need and found that we were about 10 percent short over the 10-year period,” Alviti said.
As Alviti and company began looking at potential funding mechanisms to make up the difference that could be sustainable and dedicated, they made a couple of important discoveries.

“We found that while the tolling of our interstates is restricted by federal law, there are regulations that allow the funding of bridges on the interstate through tolling strictly for the purpose of the reconstruction and rehabilitation of the bridge that you’re tolling,” he said. “We found that there existed a body of studies. One is the (Government Accountability Office) study that showed that large commercial vehicles overwhelmingly provide the most destruction to roads and bridges.”

Further examination showed that there was an imbalance in the revenues collected for different classes of vehicles.

“Passenger vehicles and lower class vehicles were contributing up to 80 percent of the revenue and trucks less than 20 percent of the revenue provided for infrastructure repairs,” Alviti said.

They ultimately determined that the larger commercial vehicles class eight and above would be the ones tolled and the average toll amount would be $3 at each of the 14 tolling locations.

“If we were to use the ratio for passenger vehicles, we’d have to charge them less than a penny or so little that the transaction cost for collecting that toll from the smaller vehicles is not feasible,” Alviti said. “So that’s how the concept of truck-only tolls came about.”

Alviti expects to have a contract signed with one of the six competitors by the end of the summer and have the first toll operational before the end of this year.

Not everyone is a fan of the tolling plan. The trucking industry in particular has continued to lobby against it since the passage of the legislation. But Alviti said he still believes state leaders made the right choice.

“The case that we made was so data-driven and so conclusive that the facts are irrefutable,” he said. “Politically the governor and the legislature showed courage in going forward with this proposal as a funding mechanism in the face of opposition with the trucking industry. And we get it. We understand that this introduces an additional cost to them. But it’s really one they should have been bearing all along.”

Alviti believes part of what the trucking industry fears is that as Rhode Island’s tolling concept becomes better known around the country, it could spread to other states that are facing their own infrastructure needs. Alviti also suggested RhodeWorks could have some significance to the conversation going on at the federal level about a major infrastructure investment that could rely heavily on public-private partnerships, or P3s.

“When you look at the components in the methodology that we set up and the logic in the 10-year plan itself, it so parallels what I think we’re facing as a national policy,” he said. “I’m sure that whatever national plan they come up with will have many of these elements in it so we feel pretty confident that we’re well poised to take advantage of the program that they come up with.”

Pennsylvania’s Rapid Bridge Replacement Project

Another of the nation’s most important bridge programs is also one of the most innovative public-private partnerships in the country.
The Pennsylvania Department of Transportation has partnered with the private sector to tackle a bundle of bridges all at once with the goals of achieving time and cost savings.

With a realization that roughly 18 percent of the commonwealth’s bridges are structurally deficient compared to the national average of 7.3 percent, Pennsylvania officials recognized something needed to be done.

“The rapid bridge replacement contract calls for our partner, Plenary Walsh Keystone Partners, to replace 559 structurally deficient bridges by the end of 2018,” said Michael Bonini, director of the Pennsylvania Office of Public-Private Partnerships. “In 2015, which was the first year of construction, 49 bridges were finished. Last year, we completed 124. So that leaves about 390 or so bridges to finish in the next two years.”

Unlike with many public-private partnerships, none of the bridges replaced in Pennsylvania will be tolled. Once substantial construction of the bridges is completed, PennDOT will make periodic, performance-based availability payments to Plenary-Walsh for the development and ongoing maintenance of the bridges. To make the payments possible, PennDOT secured the authority to issue up to $1.2 billion in private activity bonds from the U.S. Department of Transportation.

Bonini said other states with aging infrastructure including Massachusetts and New York have expressed an interest in Pennsylvania’s rapid bridge replacement. And just as with RhodeWorks in Rhode Island, Pennsylvania’s experience with rapid bridge replacement could hold lessons for the national conversation.

“We’d be more than happy to share our stories of success relative to bridge delivery and our other (P3) projects,” Bonini said. “We’re also anxious to see what exactly the Trump administration is proposing and I imagine PennDOT will stand ready to act accordingly.”

Gordie Howe International Bridge

When President Donald Trump met for the first time with Canadian Prime Minister Justin Trudeau in February, they agreed that the construction of the Gordie Howe International Bridge connecting Detroit, Michigan, and Windsor, Ontario, is helping to build a stronger connection between the two nations.

“Given our shared focus on infrastructure investments, we will encourage opportunities for companies in both countries to create jobs through those investments,” Trump and Trudeau said in a joint statement. “In particular, we look forward to the expeditious completion of the Gordie Howe International Bridge, which will serve as a vital economic link between our two countries.”

The new international crossing, which was first proposed more than a decade ago, has seen more than its share of challenges, including opposition in court from Manuel Moroun, who owns the competing Ambassador Bridge and some properties within the footprint of the new bridge.

With a judge having ruled earlier this year that the condemnation of the property can go forward, it now appears the bridge is on track to completion.

The Windsor-Detroit Bridge Authority, a not-for-profit corporation, has shortlisted three concession teams that will submit proposals by the end of the year to run tolling operations on the bridge. Canada is financing the bridge through a public-private partnership and supplying Michigan’s $550 million share of the project. The tolls collected will go toward repayment of the Michigan
The new bridge, which is expected to be completed by 2020 at a cost of $2.1 billion, will have the first freeway-to-freeway, cross-border connection in the area, said Kirk Steudle, director of the Michigan Department of Transportation.

“Right now there’s not a freeway-to-freeway connection,” he said. “There is on the American side. It ties into I-75, but on the Canadian side it goes on a street called Huron Church Street, which has traffic signals from there. … (The new bridge will) also take truck traffic out of downtown Windsor.”

The bridge project, which will incorporate the latest infrastructure technology and feature pedestrian and bike lanes, this year won a prestigious engineering project of the year award.

As for whether the bridge has helped forge a stronger connection between the U.S. and Canada, Steudle said he believes that it has.

“The relationship and the partnership (are) really very strong,” he said. “It takes you awhile to learn each other but I think we both appreciate each other’s strengths in this project. … While Michigan and Ontario sit right next to each other, we still are different countries. … When we were starting the environmental process, we had to make sure we were very clear about what we were talking about. It’s easy to fall into your own lingo. Even though you’re speaking the same language, some words have a slightly different meaning.”

Ohio River Bridges Project

The Louisville-Southern Indiana Ohio River Bridges Project is a long-in-the-works project to increase mobility across the Ohio River, improve safety, alleviate congestion and connect highways. It involved the construction of two new bridges—the Abraham Lincoln Bridge connecting downtown Louisville, Kentucky, and Jeffersonville, Indiana, and the Lewis and Clark Bridge located eight miles upstream and connecting Prospect, Kentucky, and Utica, Indiana. The project also entailed reconfiguring what is referred to as “spaghetti junction” where three interstates come together in downtown Louisville, reconfiguring Indiana roadways and bridge approaches, rehabbing the existing Kennedy Bridge and constructing a 1,700-foot tunnel on the Kentucky side.

The opening of the Lewis and Clark Bridge and the commencement of tolling on both bridges in December 2016 marked the completion of the last major elements of the $2.3 billion bridges project.

As former Kentucky Gov. Steve Beshear told CSG last year in an interview for the CSG-produced web video “The Transportation Wish List,” the project was made possible thanks to a relationship he established early on with then-Indiana Gov. Mitch Daniels. With each state bringing its own strengths and available tools to the project—Indiana had the authority to do a P3, Kentucky did not at the time, for example—they were able to move the long-awaited project forward.

“A very complicated project,” Beshear said. “A project financed in two different ways. A project that two different states were doing, two different transportation cabinets were doing. I mean if you put this down on paper you’d say ‘this is not going to happen. There are just too many moving parts here.’ But we made it happen and really in the end we made it happen in a very simple way: We trusted each other. … I wasn’t worried about a Republican getting some credit for this and he wasn’t worried about a Democrat
getting some credit for it. Because we knew in the end what was best for the people of our two states and we put that first.”

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