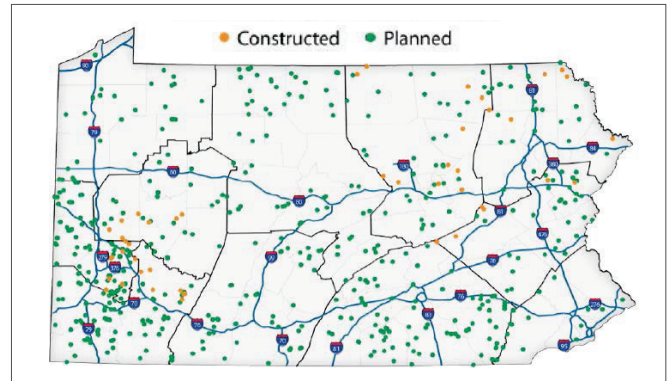


# PENNDOT RAPID BRIDGE REPLACEMENT PROGRAM

The Pennsylvania Rapid Bridge Replacement Project is replacing 558 structurally deficient bridges in 3 years under a single contract through an availability payment-based public-private partnership (P3). The bridges are primarily state-owned, smaller spans that are on roads with low traffic volumes in rural areas across the state. The project accelerated the replacement of the bridges with robust, high-quality new structures that will be well maintained and have longer lifespans. By bundling the replacement of over 500 bridges in a single P3 procurement and by applying asset management best practices throughout the 25-year concession period, PennDOT created efficiencies through economies of scale. The bridges have also been designed to minimize environmental impacts and public inconvenience during construction.



Rapid Bridge Replacement: 558 Bridges Across the Commonwealth of Pennsylvania.



**Name of Agency:** Pennsylvania Department of Transportation (PennDOT)

**Location:** Statewide

**Project Delivery Method:** Design-Build-Finance-Maintain (D-B-F-M)

**Procurement Method:** Best Value (90% price, 10% technical score)

**Total Project Cost:** Bid Price \$899 Million

**Funding Source:** Public-Private Partnership (P3), 100% State-Funded  
**Payment Structure:**

- \$260 million in milestone payments during the construction period.
- \$65 million per year for 25 years.

**Construction Schedule:** 3 Years

**Project Website:** <http://parapidbridges.com/>

## SUMMARY

Program Goals	To quickly reduce the number of poor bridges in the state bridge inventory.
Bridge Selection Criteria	<ul style="list-style-type: none"> <li>• Poor condition.</li> <li>• State-owned.</li> <li>• Low-volume roadway.</li> <li>• 40'–70' single span.</li> </ul>
Delivery and Procurement Method	D-B-F-M, Best Value
Funding Sources, Financing Strategy	Public–Private Partnership. 100% State-Funded (followed federal regulations so that federal funds could be used if needed).
Environmental, Right-of-Way, and Utility Considerations	<ul style="list-style-type: none"> <li>• Obtained a SEP-15 waiver to delegate NEPA/permitting responsibility to the private partner.</li> <li>• Private partner responsible for utility coordination. PennDOT intended to have the P3 team pay for the coordination and PennDOT was to pay for the actual utility relocations. Due to unclear language in the request for proposal (RFP), PennDOT paid for the coordination as well. <b>Lesson Learned:</b> Utility companies had limited resources to move utilities.</li> <li>• Private partner responsible for preparing right-of-way plans. PennDOT purchased the right-of-way.</li> <li>• For 87 “early completion” bridges, PennDOT coordinated all environmental, utility, and right-of-way issues.</li> <li>• PennDOT would intervene when third parties were not responsive to the private partner.</li> </ul>
Risks	<ul style="list-style-type: none"> <li>• Because this project is D-B-F-M, the risk is primarily on the private partner.</li> <li>• Risk to the owner is loss of control. Very important to have a very good RFP.</li> </ul>
Owner Management/Quality Assurance	<ul style="list-style-type: none"> <li>• PennDOT hired a consultant as a program manager.</li> <li>• PennDOT hired a consultant to perform design reviews.</li> <li>• Construction inspection was performed by a third party consultant hired by the P3 team but reported directly to PennDOT. PennDOT provided QA by providing one additional construction inspector per three bridges. <b>Lesson Learned:</b> It may have been better to have construction inspection paid for directly by PennDOT.</li> </ul>
Stakeholder Communication	<ul style="list-style-type: none"> <li>• PennDOT worked extensively with state lawmakers to pass legislation allowing for the use of a P3.</li> <li>• PennDOT had an industry meeting with the Association of Pennsylvania Constructors at Hershey Lodge to inform them about the process.</li> <li>• PennDOT conducted an outreach program aimed at DBEs to ensure that they would know how to get involved with the P3 contract.</li> </ul>

