

CONCRETE CONNECTIONS

Concrete Connections is an annotated list of websites where information is available about concrete bridges. Links and other resources are provided at www.aspirebridge.org.

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<https://www.fhwa.dot.gov/bridge/prefab/gravesave.cfm>

In 2006, Leware Construction Company (profiled in the Focus article on page 6) worked with the Florida Department of Transportation to use self-propelled modular transporters in the Graves Avenue Bridge over Interstate 4 replacement project. The new bridge superstructure was moved into place during only two night closures. This is the link for the Federal Highway Administration webpage about the project, which includes links to photos and videos of the move.

<https://abc-utc.fiu.edu/mc-events/hawaii-dots-waikoko-bridge-replacement-project>

The Waikoko Stream Bridge replacement in Kauai, Hawaii, is the subject of the Project article on page 16. This bridge replacement was accomplished using just one 57-hour full-road closure. Innovative precast concrete solutions allowed the design team to manage the challenging site conditions and remote location. This is a link to a recorded webinar about the project.

<https://engineer.mcoho.org/projects/third-street-bridge>

The Third Street Bridge in Dayton, Ohio, also known as the Peace Bridge, is the subject of the Project article on page 20. This is a link to a webpage that discusses additional details about the bridge's aesthetic design and community involvement in the project.

<https://www.pci-foundation.org/studio-history>

The Professor's Perspective by Dr. David Garber of Florida International University on page 42 discusses the many roles that professors fill and how industry involvement can help professors develop their careers. This link provides information about the PCI Foundation Studios, which are mentioned in the article.

<https://www.youtube.com/channel/UCIL0NyWPPAqrikLb6hJMA8Q/featured>

With support from the PCI Foundation, Dr. David Garber of Florida International University developed 46 videos and over 23 hours of content for his prestressed concrete design course. This is the link to his YouTube channel, where the videos are available to view. Dr. Garber reflects on establishing his career in academia in the Professor's Perspective on page 42.

<https://par.nsf.gov/servlets/purl/10072455>

In the Professor's Perspective article on page 44, Dr. Robin Tuchscherer of Northern Arizona University discusses the balance needed in engineering education between theory and practical applications. The article mentions an ongoing study that is testing instructional interventions designed to help engineering students succeed in their studies and their future careers. This is the link to the report from one of Dr. Tuchscherer's previous studies on a similar topic.

https://www.virginiadot.org/vtrc/main/online_reports/pdf/16-r14.pdf

The Virginia Transportation Research Council (VTRC) has conducted multiple studies on strategies to reduce cracking in cast-in-place concrete decks. This is a link to a VTRC report on the use of lightweight concrete to reduce cracks in bridge decks. The Safety and Serviceability article on page 32 discusses some effective crack-control strategies based on experience and research in Virginia.

<https://www.fhwa.dot.gov/bridge/nbis2022.cfm>

The updated National Bridge Inspection Standards (NBIS) are designed to strengthen the main safety program for highway bridges, as discussed in the FHWA article on page 51. This link takes you to the Federal Highway Administration's webpage devoted to information on NBIS 2022, including links to an overview presentation about the NBIS updates and the *Specifications for the National Bridge Inventory*.

<https://doi.org/10.15554/CB-02-16>

The Concrete Bridge Technology article on page 28 focuses on lessons learned when handling long-span prestressed concrete girders, such as the 223-ft-long girders on the Puyallup River Bridge in Washington state. In the article, PCI's *Recommended Practice for Lateral Stability of Precast, Prestressed Concrete Bridge Girders* is referenced. This is a link to download the free publication.

OTHER INFORMATION

<https://structuraltechnologies.com/preserving-extending-the-service-life-of-concrete-bridges>

The National Concrete Bridge Council has made the six-part Summer Enrichment Series on Preserving and Extending the Life of Concrete Bridges available for viewing for a limited time. Follow this link to access information about the six modules and register for access to the webinars.

<https://www.fhwa.dot.gov/publications/research/infrastructure/structures/bridge/22065/22065.pdf>

The Federal Highway Administration's *Design and Construction of UHPC-Based Bridge Preservation and Repair Solutions* is available via this link. This publication presents common and emerging solutions for using ultra-high-performance concrete for preservation and repair. It includes design and construction recommendations for bridge deck overlays, link slabs, and steel beam end repairs.

<https://www.gotostage.com/channel/b14f2c1519a3434dbede1a217a9033d7/recording/4848d47d76f542ad8beac2f2644f3cd8/watch>

In the Fall 2022 issue of *ASPIRE*®, a Perspective article discussed the recent changes to the "Buy America" requirements for highway bridge projects. This is a link to a Florida Department of Transportation webinar about the Infrastructure Investment Jobs Act, which includes the Build America, Buy America Act.