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

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https://www.volusia.org/veteransmemorialbridge
WSP's global presence in bridge engineering is the topic of this issue's Focus article on page 6. This is a link to the Volusia County project website for the Tom Staed Veterans Memorial Bridge over the Halifax River in Daytona Beach, Fla. WSP led the design team for this bridge, which was the first precast concrete deck through-arch main span in the United States.

https://www.transitchicago.com/rpm
https://www.youtube.com/watch?v=RVsP9DjTYW4
The $1.2 billion Chicago Transit Authority (CTA) Red and Purple Modernization (RPM) Phase 1 design-build project is the subject of the Project article on page 12 and is also discussed in the Authority article on page 44. The first link is for CTA's landing page for information regarding the RPM program. The second link leads to a video rendering of the Lawrence to Bryn Mawr section of the project.

https://mdta.maryland.gov/NiceMiddletonBridge/Home
The new Nice-Middleton Bridge project is one of the Maryland Transportation Authority's (MDTA's) largest transportation initiatives to date. The $463 million design-build project to replace a 1.9-mile-long, two-lane bridge over the Potomac River between Maryland and Virginia is the subject of the Project article on page 18. The link leads to the MDTA website for the project, which includes videos of the finished bridge and the design approach.

https://www.dot.state.oh.us/OTEC/Documents/2021OTECPresentations/26/Carroll_26.pdf
The Concrete Bridge Technology article on page 34 discusses two pilot projects undertaken by the Ohio Department of Transportation to evaluate innovative materials for prestressing strands in adjacent prestressed concrete box-beam bridges. One bridge used high-strength stainless steel strands and one used carbon-fiber-reinforced polymer strands. This is a link to a presentation on the bridges from the 2021 Ohio Transportation Engineering Conference.

https://www.fhwa.dot.gov/pavement/sustainability/webinars.cfm
https://www.fhwa.dot.gov/pavement/sustainability/library
Strategies for incorporating sustainability into bridge design and construction are an ongoing topic of conversation in the concrete bridge industry. These two links lead to resources developed by the Federal Highway Administration (FHWA) to advance the sustainability of pavements. As discussed in the Concrete Bridge Stewardship article on page 28, the strategies developed for pavements may serve as a useful example for developing similar programs for bridges and structures.

https://youtu.be/FPyfZIDcM_E
The Concrete Bridge Technology article on page 30 explains how cellulose nanocrystals (CNCs) are being used as a concrete additive. This link leads to a U.S. Forest Service video that explains how diseased or damaged trees can be used as a renewable and nontoxic source for CNCs. The CNCs are then used as a supplementary cementitious material and may help decrease the amount of cement needed for concrete mixtures.

https://www.pci.org/ItemDetail?iProductCode=TR-9-22&Category=FIELD&WebsiteKey=5a7b2064-98c2-4c8e-9b4b-18c80973da1e
https://www.fhwa.dot.gov/publications/research/infrastructure/structures/bridge/22065/22065.pdf
Rehabilitation and widening of the twin bridges over the Paudèze River in southwestern Switzerland incorporated a unique ultra-high-performance concrete solution (see the Concrete Bridge Technology article on page 38). The first link can be used to acquire *Guidelines for the Use of Ultra-High-Performance Concrete (UHPC) in Precast and Prestressed Concrete* (TR 9-22) from the PCI bookstore, and the second link accesses FHWA's *Design and Construction of UHPC-Based Bridge Preservation and Repair Solutions.*

https://www.fhwa.dot.gov/bridge/concrete/hif19067.pdf
FHWA's *Replaceable Grouted External Post-Tensioned Tendons*, available via this link, is one of the publications being used to develop content for the Concrete Bridge Engineering Institute's (CBEI's) Post-Tensioning Laboratory program. The Post-Tensioning Laboratory, which is one of CBEI's three "pillars of learning," is discussed in the article on page 51.

https://www.fhwa.dot.gov/bridge/lrfd/webinar.cfm
The FHWA article on page 58 presents a detailed discussion about concrete bridge shear load rating using the modified compression field theory. This link provides access to FHWA Webinar no. 35: *Application of the Modified Compression Field Theory in Concrete Bridge Shear Load Rating*.

https://doi.org/10.17226/26677
The LRFD article on page 55 describes provisions that will be published in the forthcoming 10th edition of American Association of State Highway and Transportation Officials' *AASHTO LRFD Bridge Design Specifications* involving the use of 0.7-in.-diameter strands in precast, pretensioned concrete girders. Many of these provisions are based on the National Cooperative Highway Research Program Research Report 994, *Use of 0.7-in. Diameter Strands in Precast Pretensioned Girders*. The report can be downloaded from this link.

https://www.pci-foundation.org
The Professor's Perspective on page 48 discusses the Precast Bridge Studio program at California State University, Sacramento. This is a link to the PCI Foundation website, which offers information on precast bridge and architectural studios.