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.

IN THIS ISSUE

http://aspirebridge.com/magazine/2019Fall
The Marc Basnight Bridge at North Carolina's Outer Banks is mentioned in the Focus article on specialty post-tensioning contractor Schwager Davis Inc. on page 6. The bridge is 14,800 ft long with 11 spans of post-tensioned segmental concrete box girders and 71 spans of prestressed concrete girders. It was featured in Project and Concrete Bridge Technology articles in the Fall 2019 issue of *ASPIRE*®. Both articles can be found at this link.

https://dot.ca.gov/-/media/dot-media/programs/engineering/documents/seismicdesigncriteria-sdc/sdc20april2019final.pdf
The latest version of *Seismic Design Criteria* published by the California Department of Transportation is available for download at this website. The history and development of this document are presented in the Perspective article on page 10.

https://www.structuremag.org/wp-content/uploads/2014/08/D-GA-Blume-Weingardt-Dec-081.pdf
John Blume, who is recognized as the "Father of Earthquake Engineering," is mentioned in the Perspective article on the evolution of seismic bridge design at the California Department of Transportation on page 10. This is a link to a 2008 *STRUCTURE* magazine article about his contributions to seismic analysis and design.

https://www.youtube.com/watch?v=T9FjrtDlUZc
The New Mexico Department of Transportation created this video of construction activities on the U.S. Route 54 Canadian River Bridge project. The three-span cast-in-place, post-tensioned segmental box-girder bridge is featured in the Project article on page 24.

https://pahistoricpreservation.com/section-106-success-readings-penn-street-bridge
This is a link to a blog post that focuses on the preservation and community involvement aspects of the Penn Street Arch Bridge Rehabilitation project that is featured in the Project article on page 32. It also contains links to two aerial drone interactive 360-panoramic images of the bridge during construction.

https://www.asbi-assoc.org/index.cfm/resources/construction_practices_handbook
The American Segmental Bridge Institute's *Construction Practices Handbook for Concrete Segmental and Cable-Supported Bridges*, third edition, is a "how-to" guide for the industry and is featured in the Concrete Bridge Technology article on page 36. The handbook is available as a free download from this webpage.

https://www.tsp2.org/2013/10/04/alkali-aggregate-reactivity-aar-facts-book/
The FHWA article on page 42 discusses available tests for alkali-silica reaction as well as a new, faster test being developed by the Chemistry Research Laboratory at the Federal Highway Administration (FHWA) Turner-Fairbank Highway Research Center. The FHWA's *Alkali-Aggregate Reactivity (AAR) Facts Book* (FHWA-HIF-13-019) is available for download from this webpage.

https://www.fib-international.org/publications/fib-bulletins/externally-applied-frp-reinforcement-for-concrete-structures-detail.html
The Concrete Bridge Preservation article on page 46 provides an overview of externally applied fiber-reinforced-polymer composites and their applications, limitations, and design considerations. The article also discusses international design guidelines, including *Externally Applied FRP Reinforcement for Concrete Structures*, Bulletin 90, published by *fib* (International Federation for Structural Concrete). This webpage provides a link to the detailed table of contents and information for purchasing the bulletin.

www.pci.org/AnchoringToConcreteImp
As mentioned in the LRFD article on page 50, Article 5.13 of the American Association of State Highway and Transportation Officials' *AASHTO LRFD Bridge Design Specifications* has incorporated by reference the provisions for anchoring to concrete from the American Concrete Institute's *Building Code Requirements for Structural Concrete* (ACI 318-14) *and Commentary* (ACI 318R-14). Under the sponsorship of the National Cooperative Highway Research Program, PCI developed a five-part webinar series for bridge engineers on the requirements for designing, detailing, and installing concrete anchors. This webpage provides a link to access to a Dropbox folder that contains the recorded webinar series, course handouts, and additional resources.

http://resources.crsi.org/resources/rebar-reference-mobile-app
The Concrete Reinforcing Steel Institute has a free mobile app, "Rebar Reference," which can be obtained at this link. The app, available for both Android and iOS mobile devices, serves as a ready reference guide and provides general information pertaining to steel reinforcement. The features of the mobile app are described in detail in the Concrete Bridge Technology article on page 38.

OTHER INFORMATION

https://store.transportation.org/Item/CollectionDetail?ID=214
AASHTO recently published the *Guide Specification for Service Life Design of Highway Bridges*. This link leads to a webpage with a description of the publication, a link to the table of contents, and purchasing information.

https://store.transportation.org/Item/CollectionDetail?ID=215
AASHTO recently published the *Historic Bridge Preservation Guide*. This link leads to a webpage with a description of the publication, a link to the table of contents, and purchasing information.