

CONCRETE CONNECTIONS

Concrete Connections is an annotated list of websites where information is available about concrete bridges. Fast links to the websites are provided at www.aspirebridge.org.

IN THIS ISSUE

www.826-836.com

This website has more information about the Palmetto/Dolphin Interchange project described on pages 12 to 14. Additional photographs and a time-lapse video showing the operation of the gantry crane are available.

www.tinyurl.com/BurntRiverBridge

Visit this website for a time lapse video by the Oregon Department of Transportation showing construction of the Burnt River Bridge described on pages 16 to 18.

www.fhwa.dot.gov/research/resources/uhpc.cfm

This Federal Highway Administration (FHWA) website is the location of considerable information about ultra-high-performance concrete as described in the FHWA article on pages 32 to 33.

www.fhwa.dot.gov/publications/research/infrastructure/structures/hpc/13060

A report titled *Ultra-High Performance Concrete: A State-of-the-Art Report for the Bridge Community* (Pub. No. FHWA-HRT-13-060) is available at this website. The report includes information on materials and production, mechanical properties, and structural design and testing. An extensive list of references is provided.

Bridge Technology

www.aspirebridge.org

Previous issues of *ASPIRE*TM are available as pdf files and may be downloaded as a full issue or individual articles. Information is available about free subscriptions, advertising, and sponsors.

www.nationalconcretebridge.org

The National Concrete Bridge Council (NCBC) website provides information to promote quality in concrete bridge construction as well as links to the publications of its members.

www.concretebridgeviews.com

This website contains 75 issues of *Concrete Bridge Views* (formerly *HPC Bridge Views*), an electronic newsletter published jointly by the FHWA and the NCBC to provide relevant, reliable information on all aspects of concrete in bridges.

www.fhwa.dot.gov/publications/research/infrastructure/structures/ltp/13051/

The FHWA technical report titled *LTBP Bridge Performance Primer* is available at this website. The report is intended to provide a comprehensive definition of bridge performance that will be the foundation for carefully designed research studies in the Long-Term Bridge Performance (LTBP) Program. The report describes the barriers and complications that hinder the understanding of bridge performance and identifies the measures by which bridge performance is currently defined. The report divides bridge performance into specific issues, identifies the most critical issues, and describes the types of data necessary to analyze these issues.

www.trb.org/main/blurbs/170201.aspx or

<http://onlinepubs.trb.org/onlinepubs/shrp2/SHRP2prepubR19B.pdf>

TRB's second Strategic Highway Research Program (SHRP 2) Reliability Project R19B has released a prepublication, non-edited version of a report titled *Bridges for Service Life Beyond 100 Years: Service Limit State Design* that explores design codes critical for bridges to reach a service life of beyond 100 years. The report also addresses performance measures and design procedures that utilize criteria to maximize the actual life of a bridge system.

<http://vimeo.com/83863944>

The video on this website highlights the benefits of SHRP 2 ABC Toolkit for using accelerated bridge construction techniques on standard bridges. It features the replacement of the I-84 bridge over Dingle Road in New York State.

www.abc.fiu.edu/wp-content/uploads/2013/07/ABC-User-Guide-for-posting1.pdf

This Florida International University website contains a user's guide to the National ABC Project Exchange, which is a nationwide repository of projects that have incorporated Prefabricated Bridge Elements and Systems (PBES) with other innovative strategies to accomplish the objects of accelerated bridge construction.

NEW www.fhwa.dot.gov/goshrp2/

Visit this website to learn about SHRP solutions to solve real problems.

Bridge Research

NEW www.trb.org/main/blurbs/170409.aspx

The FHWA has released a tech brief that discusses bond strength tests of concrete with a unit weight between that of traditional lightweight concrete and normal weight concrete.

NEW www.fhwa.dot.gov/publications/research/infrastructure/structures/hpc/14041/14041.pdf

This website contains a technical summary of the FHWA report titled *Splice Length of Prestressing Strand in Field-Cast Ultra-High Performance Concrete Connections*.

NEW http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_w201.pdf

The NCHRP Report titled Calibration of AASHTO LRFD Concrete Bridge Design Specifications for Serviceability is available at this website.

www.trb.org/shrp2/researchreports

Are you looking for a research report from the second Strategic Highway Research Program? Nearly 110 reports organized by focus area and topic are now available as free downloads from this website.

NEW www.trb.org/main/blurbs/170412.aspx

The Colorado Department of Transportation has released a report that examines the freeze-thaw resistance of internally cured concrete so as to improve performance of the concrete.