

CONCRETE CONNECTIONS

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

https://www.fhwa.dot.gov/goshrp2/Solutions/All/R19A/Service_Life_Design_for_Bridges

This is a link to the webpage with information and products related to the SHRP2 Service Life Design for Bridges (R19A) project that was mentioned in the Perspective article on page 10. Links to two reports produced by the project follow.

http://onlinepubs.trb.org/onlinepubs/shrp2/SHRP2_S2-R19A-RW-1.pdf

This is a link to the SHRP2 R19A project report titled *Bridges for Service Life Beyond 100 Years—Innovative Systems, Subsystems, and Components*.

http://onlinepubs.trb.org/onlinepubs/shrp2/SHRP2_S2-R19A-RW-2.pdf

This is a link to the SHRP2 R19A project report titled *Design Guide for Bridges for Service Life*.

<http://parapidbridges.com/>

This is a link to the website for the P3 project team delivering PennDOT's Rapid Bridge Replacement Project mentioned in the Focus article on page 6.

<https://www.facebook.com/SoundTransit/videos/vb.48453323978/10153491025933979/?type=2&theater>

This is a link to a Sound Transit webpage with time lapse video of erecting precast concrete box-girder segments for the South 200th Link Extension bridge described in the Project Profile on page 16. Additional information on the project is also available on related webpages.

<http://www.michigan.gov/som/0,4669,7-192-47796-339743--,00.html>

This is a link to a Michigan DOT webpage for discussion and a time-lapse video of the lateral slide of the M-50 bridge over I-96 that was described in the Project Profile on page 24. The webpage also provides links to other information on slide-in bridge projects.

<https://www.fhwa.dot.gov/construction/sibc/>

This is a link to the FHWA website for Slide-in Bridge Construction that was promoted as part of the Every Day Counts initiatives for 2012. This concept was used in the Project Profile on page 24.

http://www.fhwa.dot.gov/bridge/refined_analysis.pdf

This is a link to a preliminary version of Volume 1 of the FHWA manual on refined analysis mentioned in the FHWA article on page 34.

<http://www.nrmca.org/aboutconcrete/cips/39p.pdf>

This is a link to NRMCA's "CIP 39: Maturity Methods to Estimate Concrete Strength" that is cited as a reference in the Safety and Serviceability article on page 32.

<http://www.homelandsecuritynewswire.com/dr20121023-assessing-bridge-resilience>

This is a link to an article on the homeland security industry's online news publication Homeland Security News Wire titled "Assessing Bridge Resilience" that is cited as a reference in the sustainability article on page 48.

http://publications.arup.com/Publications/C/City_Resilience_Framework.aspx

This is a link to a webpage from which the three-volume report titled *City Resilience Framework*, which was developed by Ove Arup & Partners International Limited and supported by the Rockefeller Foundation, can be downloaded. The report is cited as a reference in the sustainability article on page 48.

www.fhwa.dot.gov/bridge/pubs/hif11016/hif11016.pdf

This is a link to the FHWA Report FHWA-IF-11-016 titled *Framework for Improving Resilience of Bridge Design* that is cited as a reference in the sustainability article on page 48.

<https://www.fhwa.dot.gov/bridge/construction/pubs/hif13026.pdf>

This is a link to the FHWA Report FHWA-NHI-13-026 titled *Post-Tensioning Tendon Installation and Grouting Manual* that is mentioned in the Concrete Bridge Technology article on diabolos on page 30.

<http://www.dot.state.fl.us/structures/Bulletins/2014/SDB14-06.pdf>

This is a link to archived FDOT Structure Design Bulletin 14-06 that specifically allows use of diabolos for external tendons in segmental box-girder bridge as discussed in the Concrete Bridge Technology article on diabolos on page 30.

Bridge Technology

NEW <http://library.modot.mo.gov/RDT/reports/TR201414/cmr16-001.pdf>

This is a link to a Missouri Department of Transportation report titled *Evaluation of Resistivity Meters for Concrete Quality Assurance* that evaluates a series of concrete mixtures to verify existing relationships between surface resistivity, rapid chloride permeability, chloride ion diffusion, and the AASHTO penetrability classes.

NEW <http://www.wsdot.wa.gov/research/reports/fullreports/845.1.pdf>

This is a link to a Washington State Department of Transportation report titled *Evaluation of Performance Based Concrete for Bridge Decks* that discusses the early results of changes made to its concrete specification for bridge decks in an effort to reduce early-age restraint cracking.

www.aspirebridge.org

Previous issues of *ASPIRE*[™] are available to search and as pdf files, which may be downloaded as a full issue or individual articles. Information is available about free subscriptions, advertising, and sponsoring organizations.

www.nationalconcretebridge.org

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