

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

http://www.pci.org/Project_Resources/Project_Profiles/Profile_Pages/Construction_of_100m_Single_Span_Batu_6_UHPC_Bridge/?terms=uhpc

This is a link to a profile of the BATU 6 bridge, which utilized ultra-high-performance concrete to achieve a 100-m-long single span. The bridge is mentioned in the Concrete Bridge Technology article on page 28 and was the recipient of the 2016 PCI Design Award for Best International Transportation Structure.

<https://www.osha.gov/silica/>

This is a link to information on the OSHA rule regarding respirable crystalline silica in the construction industry that is the topic of the article on page 10.

<https://www.osha.gov/silica/SilicaConstructionRegText.pdf>

This link is to the OSHA rule 1926.1153 on respirable crystalline silica in the construction industry.

<http://www.aspiremagazinebyengineers.com/i/697527-summer-2016/49>

This is a direct link to the article in the Summer 2016 issue of *ASPIRE™* that explains the OSHA rule on respirable crystalline silica in the construction industry.

<http://www.earthcam.com/client/caltrans/antlersbridge/index2.php>

This is a link to current and archived photos of the Antlers Bridge featured in the Project article on page 24 of this issue.

<http://www.dot.ca.gov/dist2/projects/antlers.htm>

This link connects to the Caltrans project website for Antlers Bridge and contains photos, route re-alignment, schedule, etc.

<http://maine.gov/mdot/sml/>

This is a link to the Maine Department of Transportation website for the Sarah Mildred Long Bridge Replacement project currently being constructed by Cianbro Corporation, the contractor featured in the article on page 6.

<http://aspirebridge.com/magazine/2007Winter/Penobscot.pdf>

This is a direct link to the Winter 2007 *ASPIRE* article on the Penobscot Narrows Bridge constructed by Cianbro Corporation, the contractor featured in the article on page 6.

<http://www.dura.com.my/>

This link is to the DURA® website and gives the history of ultra-high performance concrete (UHPC) as well as descriptions of recent projects using their proprietary UHPC. DURA® is mentioned in the Concrete Bridge Technology article on page 28.

https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/uhpc.cfm

This is a link to the Federal Highway Administration website, which presents the benefits of using UHPC for the connections of prefabricated bridge elements. The website also provides access to informative videos and webinars.

<https://www.fhwa.dot.gov/publications/research/infrastructure/structures/hpc/13060/13060.pdf>

This is a direct link to *Ultra-High Performance Concrete: A State-of-the-Art Report for the Bridge Community* (Publication No. FHWA-HRT-13-060).

<http://www.cement.org/for-concrete-books-learning/concrete-technology/concrete-design-production/ultra-high-performance-concrete>

This is a link to the Portland Cement Association website that provides a basic explanation and material properties of ultra-high-performance concrete.

<http://www.wmschultz.com/portfolio/accelerated-bridge-replacements/>

This link is to a website that contains construction photos of the bridges that were replaced and are the subject of the project article on page 12.

http://www.crsi.org/Resources/technical/PDF/CRSI-Specialty_Steel_Product_Guide.pdf

This is a link to the Concrete Steel Reinforcing Institute's *Product Guide for Specialty & Corrosion-Resistant Steel Reinforcement*, which provides information for specification, fabrication, estimating, detailing, and placement of steel reinforcing bars specified for improved corrosion resistance, the subject of the Concrete Bridge Technology article on page 33.

<https://oldcastleprecast.com/pressrelease/omega-bridge-sections-used-at-carter-machinery-caterpillar-site/>

This is a link showing a proprietary short-span precast concrete bridge section that combines substructure and superstructure into a single piece.

Bridge Research

NEW http://www.epoxyinterestgroup.org/index.cfm/_api/render/file/?method=inline&fileID=A1B192D7-0D7D-9150-827A227745A92ECD

This is a link to *Summary of Evaluation of Multiple Corrosion Protection Systems for Reinforced Concrete Bridge Decks*, which is a summary of an extensive research project funded by the Federal Highway Administration and Kansas Department of Transportation.

NEW http://www.iowadot.gov/bridge/ibrc_projects/mmfx_paper.pdf

This is a link to the report of a research project using MMFX reinforcement that was conducted at Iowa State University.

NEW <http://www.nap.edu/download/24689>

This is a link to *Control of Concrete Cracking in Bridges*, a synthesis report recently published by the National Cooperative Highway Research Program (NCHRP), which provides information on methods used to control concrete cracking in bridge superstructures and substructures, and on the influence of cracking on long-term durability.