Welcome to Webinar on Accelerated Bridge Construction

Virginia’s Rehabilitation of I-64 Dunlap Creek Bridges Using High-Performance Link Slabs and Overlay Materials: ABC Component

Sponsored by

Accelerated Bridge Construction University Transportation Center (ABC-UTC) at Florida International University

Website: abc-utc.fiu.edu
Email: abc@fiu.edu

May 18, 2017 – 1:00 p.m. to 2:00 p.m. Eastern
Today’s Webinar

ABC Announcements (10 minutes)
Featured Presentation (35 minutes)

Virginia’s Rehabilitation of I-64 Dunlap Creek Bridges Using High-Performance Link Slabs and Overlay Materials: ABC Component

Adam Matteo, P.E., Ass’t. State Structure & Bridge Engineer for Maintenance, VDOT; Rex Pearce, P.E, Staunton District Bridge Engineer, VDOT; and Celik Ozyildirim, Ph.D., P.E., Principal Research Scientist, Virginia Transportation Research Council

Question and Answer (15 minutes)

Please post your questions in the question box
2017 National Accelerated Bridge Construction Conference
December 7 and 8, 2017: Conference
December 6: Workshops
Miami, FL

Conference Program is Now Available
Registration will open
June 19, 2017
Conference at a Glance

**Wednesday, December 6**
Eleven (11), four-hour workshops

**Thursday, December 7**
Breakfast at Exhibit Hall – 7:00 to 8:00 a.m.

*General Session* – 8:15 to 10:30 a.m.
Keynote talks – Secretary of Transportation Chao (invited)
Award presentations and recognizing travel scholarship contributors

*Poster session at Exhibit Hall* – 10:45 a.m. to noon

**Thursday Afternoon and all day Friday**
Breakfast at Exhibit Hall – Friday, 7:00 to 8:00 a.m.

120 Technical Presentations, 30 minutes each
<table>
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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>8:15-9:00</td>
<td>Welcome</td>
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<tr>
<td></td>
<td>Atorod Azizinamini, ABC-UTC Director</td>
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<td>Mark Rosenberg, President, Florida International University</td>
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<td>AASHTO SCOBS</td>
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<td>US. DOT UTC Program</td>
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<tr>
<td>9:00-9:30</td>
<td>Key Note Address</td>
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<td>Elaine L. Chao, US Secretary of Transportation (Invited)</td>
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<tr>
<td>9:30-9:50</td>
<td>Recognition of Travel Scholarship Contributors</td>
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<td>Ed Power, HDR</td>
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<td>Carlos Duart, CDR Maguire</td>
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<td>9:50-10:15</td>
<td>Recognizing ABC Person of the Year and Best ABC Projects</td>
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<td>Carmen Swanwick, Chair, AASHTO SCOBS T-4</td>
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<tr>
<td>11:15-12:00</td>
<td>Poster Presentation and Coffee Break at Exhibit Hall</td>
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<tr>
<td>12:00-1:00</td>
<td>Cash Bar Lunch at Exhibit Hall</td>
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<tr>
<td>1:15-9:00</td>
<td>Thursday Breakout Sessions- Early Afternoon</td>
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<tr>
<td>Time</td>
<td>Session 1</td>
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<tr>
<td>1:00-1:30</td>
<td>Folding Metal Bridge with Falcate Modules - HM 2T</td>
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<td></td>
<td>Nodar Tsigadze, The Institute of Constructions, Special Systems and Engineering Maintenance of Georgian Technical University</td>
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<tr>
<td>1:30-2:00</td>
<td>X'Press Bridging</td>
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<td>Yves Brugaud, CSI</td>
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<td>2:00-2:30</td>
<td>Pre-fabricated FRP Reinforcement Shapes for Accelerated Bridge Construction</td>
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<td>Guillermo Clauere, University of Miami</td>
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<td>A Cost-Effective and Durable Full Depth Precast Deck System 4&quot; Case Studies</td>
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<td>Eddie He, AccelBridge</td>
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<td>2:30-3:00</td>
<td>ABC Solutions</td>
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<td>ABC Research</td>
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<td>UHPC</td>
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<td>Earthquake-Resistant ABC</td>
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<td>3:00-3:30</td>
<td>Modern Non-Butuminous Flexible Plug for ABC Projects</td>
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<td>Robert Bradley, mgeba USA</td>
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<td>David Garber, Florida International University</td>
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<tr>
<td>3:30-4:00</td>
<td>A Low Cost, Light Weight FRP Composite Bridge Deck</td>
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<td>Michael Nichols, Structural Composites Inc. &amp; Compsys Divisions of the The Composites Company</td>
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<tr>
<td></td>
<td>A compilation of ABC Solutions</td>
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<td></td>
<td>David Garber, Florida International University</td>
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</table>

**Thursday Breakout Sessions - Early Afternoon**

**Room A**
- Folding Metal Bridge with Falcate Modules - HM 2T
- Pre-fabricated Bridge Deck Panels Prepared with Sustainable Fiber Reinforced Concrete

**Room B**
- X'Press Bridging
- Shear Strength of Concrete Filled Tubes

**Room C**
- Pre-fabricated FRP Reinforcement Shapes for Accelerated Bridge Construction
- Structural Behavior of Hybrid Concrete-Filled FRP Tubes (HCFFT)

**Room D**
- A Cost-Effective and Durable Full Depth Precast Deck System 4" Case Studies
- A Modular Hybrid Steel Truss with Composite Deck for Accelerated Bridge Construction

**Room E**
- Modern Non-Butuminous Flexible Plug for ABC Projects
- Prefabricated Concrete Barrier Elements for ABC Projects

**Room F**
- Demolition Requirements for Bridge Expansion Joints - Minimizing Noise, Maximizing Driver Comfort and Accelerating Bridge Maintenance
- Accelerating Construction of the Pulaski Skyway Rehabilitation with Precast Retaining Walls and Approach Elements

**Session 1**
- Folding Metal Bridge with Falcate Modules - HM 2T
- Pre-fabricated Bridge Deck Panels Prepared with Sustainable Fiber Reinforced Concrete

**Session 2**
- X'Press Bridging
- Shear Strength of Concrete Filled Tubes

**Session 3**
- Pre-fabricated FRP Reinforcement Shapes for Accelerated Bridge Construction
- Structural Behavior of Hybrid Concrete-Filled FRP Tubes (HCFFT)

**Session 4**
- A Cost-Effective and Durable Full Depth Precast Deck System 4" Case Studies
- A Modular Hybrid Steel Truss with Composite Deck for Accelerated Bridge Construction

**Session 5**
- Modern Non-Butuminous Flexible Plug for ABC Projects
- Prefabricated Concrete Barrier Elements for ABC Projects

**Session 6**
- Demolition Requirements for Bridge Expansion Joints - Minimizing Noise, Maximizing Driver Comfort and Accelerating Bridge Maintenance
- Accelerating Construction of the Pulaski Skyway Rehabilitation with Precast Retaining Walls and Approach Elements
# Friday Breakout Sessions - Early Morning

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<th>Room A</th>
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<th>Room D</th>
<th>Room E</th>
<th>Room F</th>
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<tbody>
<tr>
<td><strong>SESSION 1</strong></td>
<td><strong>SESSION 2</strong></td>
<td><strong>SESSION 3</strong></td>
<td><strong>SESSION 4</strong></td>
<td><strong>SESSION 5</strong></td>
<td><strong>SESSION 6</strong></td>
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<tr>
<td>ABC Solutions</td>
<td>ABC-Tool</td>
<td>Monitoring-Instrumentation/Research</td>
<td>Steel Structure</td>
<td>Substructure</td>
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<tr>
<td><strong>10:00-10:30</strong></td>
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<tr>
<td>ABC Cast In Place Concrete</td>
<td>Innovative Bridge Designs for Rapid Renewal SHRP2, ABC and State Experiences</td>
<td>Interstate 78 Under Clearance Bridge Project, Phases 1 and 2</td>
<td>Bayou Lafourche Bridge Instrumentation Program</td>
<td>Experimental Testing and Analytical Assessment of Press-Brake-Formed Steel Tub Girders for Short Span Bridges</td>
<td>A Precast Bridge Substructure System for Accelerated Bridge Construction (ABC)</td>
</tr>
<tr>
<td>Joseph Krajewski, HNTB</td>
<td>Finn Hubbard, Fish &amp; Associates Inc.</td>
<td>Gerald Fry, Johnson, Mirmiran &amp; Thompson, Inc.</td>
<td>Thomas Weinmann, Geocomp</td>
<td>Karl Barth, West Virginia University</td>
<td>Zhao Cheng, Iowa State University</td>
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<tr>
<td><strong>9:30-10:00</strong></td>
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<tr>
<td>Accelerated Bascule Bridge Construction</td>
<td>Using Bridge 3D Models for Automated Rebar Detailing</td>
<td>When Winter ABC Is the Only Option: Perspectives on Reconstructing the US Route 1 Viaduct in Bath, ME</td>
<td>An FRP Bridge after 10 Years</td>
<td>Innovative Design &amp; Construction Techniques Lead to a Successful Bridge Replacement in Vermont</td>
<td>Substructure Considerations for Successful Accelerated Bridge Replacement Projects</td>
</tr>
<tr>
<td>George Patton, Hardesty &amp; Hanover, LLC</td>
<td>Alexander Mabrich, Bentely Systems</td>
<td>Steven Hodgdon, VHBP</td>
<td>Jerome O'Connor, University of Buffalo</td>
<td>David Kull, McFarland Johnson</td>
<td>David Whitmore, Vector Corrosion Technologies</td>
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<td><strong>9:00-9:30</strong></td>
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<tr>
<td>Naples, Crockett Bridge Accelerated Replacement</td>
<td>Using Bridge 3D Models After The Design Process</td>
<td>Development and Implementation of Mississippi DOT Accelerated Bridge Construction Guidelines</td>
<td>Acoustic Emission Monitoring and Assessment of Prefabricated and Prestressed Reinforced Concrete Bridge Girders</td>
<td>Fully Integral 2 Span Curved Girder Bridge Replacement in 72 days</td>
<td>Innovative In Rehabilitation of Aging Bridge Abutments</td>
</tr>
<tr>
<td>Garrett, Gustafson, Maine Department of Transportation</td>
<td>Alexander Mabrich, Bentely Systems</td>
<td>James Gregg, HNTB</td>
<td>Dryer Huston, University of Vermont</td>
<td>Adam Stockin, WSP/Parsons Brinckerhoff</td>
<td>Bob Barrett, Geostabilization International</td>
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<td><strong>8:30-9:00</strong></td>
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<td>Ohio’s ABC Demonstration Project with Rapid Bridge Replacement with Tub Girders integrated with SPS Bridge Deck</td>
<td>Not Your Average PBUs - using ABC Techniques to Solve Complex Bridge Geometry Problems</td>
<td>MnDOT’s 3 Stage Accelerated Bridge Construction Project Selection Process</td>
<td>Extending Application of New Steel Bridge System to High Seismic Area</td>
<td>Darlington Upgrade Project - Accelerated Bridge Construction in Australia</td>
<td>Design and Implementation Examples of Concrete-Filled Tubes for Deep Foundations Subjected to Large Lateral (Shear) Loading</td>
</tr>
<tr>
<td>Robando Moreau, Intelligent Engineering</td>
<td>Robert Penfield, VHB</td>
<td>Paul Roweckamp, Minnesota DOT</td>
<td>Amir Sadegheheid, Florida International University</td>
<td>Marco Loureiro, Jacobs</td>
<td>Dawn Lehman, University of Washington</td>
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<td><strong>8:00-8:30</strong></td>
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<td>Implementation of A New Precast Concrete Deck System to the Kearney East Bypass Project</td>
<td>Towards Simulation-aided Bridge Demolition Planning</td>
<td>Paving the Cowpath: Implementation of the First Accelerated Bridge Construction Policy in the State of Illinois</td>
<td>New Longitudinal Joint Detail using Normal Strength Concrete</td>
<td>Construction of Ecuador’s First Launched Steel Girder Bridges</td>
<td>Foundation Reuse in ABC Projects</td>
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<td>Fouad Jaber, Nebraska Department of Roads</td>
<td>Seung Jae Lee, Florida International University</td>
<td>Eric Ozmink, AECOM</td>
<td>Azadieh Jomrani, Florida International University</td>
<td>Mike LaViolette, HDR</td>
<td>Frank Jalinoos, FHWA R &amp; D</td>
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<td><strong>7:30-8:00</strong></td>
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<td>Selection of Most Practical and Efficient Materials for Link Slabs with ABC Application</td>
<td>New ABC Seismic Connection using UHPC</td>
<td>Golden - Laurel, Summary Write-up of ABC Aspect of Project</td>
<td>Durability of UHPC for ABC Applications</td>
<td>Sarah Mildred Long Vertical Lift Bridge Tower Foundation Construction</td>
<td>“Best Practice Manual for Bridge Foundation Reuse</td>
</tr>
<tr>
<td>Behrouz Shafei, Iowa State University</td>
<td>Mohammadreza Shahiifar, Florida International University</td>
<td>Mark Traynowercz, Nebraska Department of Roads</td>
<td>Kingsley Lau and Mahsa Farzad, Florida International University</td>
<td>Joseph Orlando, Cianbro Corporation</td>
<td>Anil Agrawal, Masoud Sanayei, Nathan Davis, Effsan Hoomaan &amp; Frank Jalinoos</td>
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</table>

**COFFEE BREAK - EXHIBIT HALLS**

10:00-10:30 | 10:30-11:00 | 11:00-11:30 | 11:30-12:00
### Friday Breakout Sessions - Afternoon Sessions

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<tr>
<td>1:00-1:30</td>
<td>Rapid Bridge Replacement Project Delivery: Overview of Design Process and Criteria, Constraints and Schedule Challenges</td>
<td>Construction challenges of the Route 37 EB Mathis Bridge Rehabilitation</td>
<td>Pilot Program of Accelerated Bridge Construction, in Jiangxi, China</td>
<td>Accelerated Bridge Construction of Signature Pedestrian Bridge, FIU’s University City Prosperity Project</td>
<td>Iowa Highway 1 over Camp Creek Side-In Bridge Construction: Iowa SIBC version 2.0</td>
</tr>
<tr>
<td>Benjamin Boisvert, P.E., Walsh Granite Joint Venture</td>
<td>Rama Krishnagiri, WSP</td>
<td>Parsons Brinckerhoff</td>
<td>Zhijian Hu, School of Transportation, Wuhan University of Technology</td>
<td>Dwight Dempsey, FIGG Bridge Engineers, Inc.</td>
<td>James Nelson, Iowa Dept. of Transportation</td>
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<tr>
<td>1:30-2:00</td>
<td>Rapid Bridge Replacement Project Construction: Construction Schedule Challenges and ABC Technologies and Uses</td>
<td>Construction of the Ohio River Bridges East End Crossing Cable-Stayed Bridge</td>
<td>ABC Practice of a Concrete Overpass</td>
<td>ABC Protecting the Forest in Chapel Hill</td>
<td>I-15; Hill Field Road Bridge Replacement</td>
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<td></td>
<td>Charles Zugell, P.E., Walsh Granite Joint Venture</td>
<td>Marcos Luizias, JACOBS</td>
<td>Zhijian Hu, School of Transportation, Wuhan University of Technology</td>
<td>Patrick Gallagher, Alpha &amp; Omega Group</td>
<td>Dan Farris, Ames Construction, Inc.</td>
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<td>2:00-2:30</td>
<td>A Case for Economy of Using More ABC</td>
<td>Accelerated Bridge Construction for Replacement of Massachusetts Avenue Over Commonwealth Avenue in Boston</td>
<td>Roll in Reconstruction of SR over I-24</td>
<td>TDOT Fast-Fix 8 - Design Details to Reduced Construction Conflicts and Project Risk</td>
<td>Slide-In Bridge Replacement of SEPTA’s Crum Creek Viaduct</td>
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<td>Thomas Stockhausen, President, CDR Bridge Systems LLC</td>
<td>Joseph Tierney, Stantec</td>
<td>Christopher Vanek, Parsons Brinckerhoff</td>
<td>Ted Kniawewycz, Gresham, Smith &amp; Partners</td>
<td>Robert Lund, Southeastern Pennsylvania Transportation Authority (SEPTA)</td>
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<td>2:30-3:00</td>
<td>Folded Steel Plate Bridge Systems with Lengths Exceeding 100 ft.</td>
<td>2-Span Continuous Integral Abutment Bridge Replacement using ABC</td>
<td>Coordination + Efficiency = Accelerated Success</td>
<td>ABC Methods for Fast Bridge Replacements in Idaho</td>
<td>Monroe Street Ramp Three-Sided Structure Slide</td>
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<td>Kevin Irving, A2Z Metal Coatings</td>
<td>Richard Schaefer, HNTB</td>
<td>Jonathan Emenheiser, CH2M</td>
<td>William Oliva, Wisconsin Local Roads ABC Bridge System - GRS &amp; PBES</td>
<td>Kumar Santosh, HDR</td>
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<td>3:30-4:00</td>
<td>Design of ABC Elements using Lightweight Concrete</td>
<td>Incremental Launching the BELLEAIR CAUSEWAY BRIDGE Approaches</td>
<td>ABC Minimizes Traffic Impacts in the Country’s Oldest State Capital City</td>
<td>Accelerated Bridge Construction Methods for Bridge 1-438 Replacement</td>
<td>I-15 &amp; SR-232 Hill Field Road Interchange Improvements Design &amp; Construction, Part 1 (Design)</td>
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<td>Red Castrodale, Castrodale Engineering Consultants PC</td>
<td>Nelson Canjura, HDR</td>
<td>Kathy Crowell, New Mexico Department of Transportation</td>
<td>Nicholas Dean, Delaware Department of Transportation - Bridge Design</td>
<td>Joshua Stetten, WSP</td>
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<td>4:00-4:30</td>
<td>Rheology Limits for Grout Materials used for Precast Bent Cap Pile Pockets under Hot Weather Conditions</td>
<td>Structural Health Monitoring System - New Champlain Bridge</td>
<td>Charguayacu Bridge Construction</td>
<td>Aubury Creek Culvert Replacement</td>
<td>Moving Complex Bridge Structures using SPMT</td>
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<td>Raphael Kampmann, FAMU-FSU College of Engineering</td>
<td>Gianni Moor, mageba USA</td>
<td>Rafael Pezo, MAVISA S.A.</td>
<td>Hormoz Seradj, Oregon Department of Transportation</td>
<td>Steven Sarens &amp; Sean Poyer, Sarens USA, Inc.</td>
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Wed., Dec. 6 - Eleven, four-hour workshops

**W-01:** Implementation of the new AASHTO Guide Specifications for Accelerated Bridge Construction

**W-02:** Lightweight Concrete – A Tool for Accelerated Bridge Construction

**W-03:** Programmatic Approach to Accelerated Bridge Construction

**W-04:** Ultra-High Performance Concrete Connections for Prefabricated Bridge Elements

**W-05:** Foundation Re-use for ABC Projects
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<td>W-06:</td>
<td>Proven Advanced Technologies Initiative</td>
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<tr>
<td>W-07:</td>
<td>Self-Propelled Modular Transporters for ABC Trends, Challenges, and Future Activities</td>
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<tr>
<td>W-08:</td>
<td>Today’s Precast, Prestressed Concrete Bridge Design</td>
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<td>W-09:</td>
<td>Recent Developments in Steel ABC Applications</td>
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<td>W-10:</td>
<td>Innovative Bridge Designs for Rapid Renewal, SHRP2 R04 ABC Toolkit</td>
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<tr>
<td>W-11:</td>
<td>Accelerated Bridge Construction in Seismic Regions</td>
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Wed., Dec. 6 - Eleven, four-hour workshops
We are developing a Travel Scholarship fund to support bridge owners to attend the Conference.

During the 2014 and 2015 Conferences, we were able to support more than 150 bridge owners to attend each of the Conferences; we hope to do the same for 2017.

Each Conference was attended by more than 750 bridge professionals.
State DOT, county engineers, and other bridge owners interested in receiving travel scholarships should send an email to Atorod Azizinamini at aazizina@fiu.edu with the following information:

1. Name and affiliation
2. Job title
3. Reason attending the Conference
4. Whether you are planning to use ABC in the near future
Opportunities are available to exhibit

Please visit www.abc-utc.fiu.edu for registration and more information

Registration will open June 19, 2017
Clarification on April Webinar
Featured Presentation

Photo courtesy of ABC-UTC (2009 Maico-Kansas fabrication of a test specimen)
Upcoming Events

2018 World Steel Bridge Symposium – Baltimore, MD
April 11-13, 2018
Hosted by National Steel Bridge Alliance (NSBA)
http://www.aisc.org/nsba/

Call for Paper Abstracts Deadline: June 2, 2017
Abstracts: 500 words or less
http://www.aisc.org/nsba/events/world-steel-bridge-symposium/2018-call-for-papers/

Topic to consider: Recent advances in ABC
Upcoming Events

2018 Structures Congress – Fort Worth, TX
April 19-21, 2018
Sponsored by ASCE/Structural Engineering Institute (SEI)
http://www.structurescongress.org/

Call for Abstracts and Session Proposals
Deadline: June 5, 2017
http://www.structurescongress.org/call-submissions
Upcoming Events

Every Day Counts Webinar Series:
Ultra-High Performance Concrete for Prefabricated Bridge Elements
Sponsored by Federal Highway Administration (FHWA)

Webinar 4 of 6:
Construction, Inspection, and Quality Assurance of UHPC Connections
June 6, 2017 – 1:00-2:30 pm EST

To register, go to the following link:
http://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/uhpc.cfm/
Upcoming Events

2017 International Bridge Conference – National Harbor, MD
June 4-8, 2017
Sponsored by Engineers’ Society of Western PA (ESWP)
http://www.eswp.com/bridge/

ABC Sessions:
• Tuesday, June 6, 8:00 am – 12:00 pm: ABC, Part 1
• Tuesday, June 6, 2:00 – 5:00 pm: ABC, Part 2

ABC Workshops:
• Wednesday, June 7, 9:00 am – 12:00 pm: W-06, FRP Composites Impact to Sustainable Design of Concrete Bridges and ABC
• Thursday, June 8, 8:00 am – 12:00 pm: W-12, ABC Systems – Concrete Filled Steel Tubes for Bridge Applications-Seismic
2017 International Bridge Conference – National Harbor, MD

June 5, 2017 – June 8, 2017

The 2017 IBC includes several ABC activities, as listed below:

ABC Sessions:
- Tuesday, June 6, 8:00 am – 12:00 pm: ABC, Part 1
- Tuesday, June 6, 2:00 – 5:00 pm: ABC, Part 2

ABC Workshops:
- Wednesday, June 7, 9:00 am – 12:00 pm: W-06, FRP Composites Impact to Sustainable Design of Concrete Bridges and ABC (see flyer)
- Thursday, June 8, 8:00 am – 12:00 pm: W-12, ABC Systems – Concrete Filled Steel Tubes for Bridge Applications - Seismic
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</table>
| 9:00 – 9:25 am | Felix Padilla, P.E.  
Structures Design Engineer  
Florida Department of Transportation  
605 Suwannee Street, MS 33  
Tallahassee, FL 32399  
P: 850-414-4306  
C: 518-229-1152  
felix.padilla@dot.state.fl.us  |
| 9:25 – 9:50 am | Dr. Brahim Benmokrane, P. Eng.  
FACI, FCSCE, FIIFC, FCAE, FEIC  
University of Sherbrooke  
Department of Civil Engineering  
Sherbrooke, Quebec, Canada J1K 2R1  
P: 819-821-7758  
C: 819-571-6923  
Brahim.Benmokrane@USherbrooke.ca  |
| 9:50 – 10:15 am | Gregory R. Bond, P.E.  
Structural Engineer  
Strongwell  
1610 Highway 52 South  
Chatfield, MN 55923  
P: 507-867-1290  
C: 507-259-2491  
GBond@Strongwell.com  |
| 10:15 – 10:40 am | Scott Reeve  
President  
Composite Advantage  
401 Kiser Street  
Dayton, OH 45404  
P: 937-723-9031  
C: 937-602-8081  
sreeve@compositeadvantage.com  |

**Halls River Bridge, Corrosion Free Design with FRP Composites**

The Florida Department of Transportation (FDOT) has conducted numerous research projects to implement fiber reinforced polymer (FRP) composites in highway structures. This intense effort has culminated in the FDOT-District-7 design of the Halls River bridge project. The proposed steel-free design features Hillman Composite Beams, GFRP reinforced bridge deck and bent caps, and Carbon Strand prestressed concrete piles. This corrosion free design will extend the service life of this bridge and demonstrate the FRP composite materials advantage.

**Design and Construction of Nipigon River Cable-Stayed Bridge using Precast Concrete Panels Reinforced with Glass FRP Rebars**

The Nipigon River cable-stayed Bridge in Northwest Ontario (Canada) is the first of its kind in the Ontario highway system and the world’s first cable-stayed bridge with glass-fiber-reinforced-polymer (GFRP) reinforced-concrete (RC) deck slabs. The four-lane bridge is located on Trans-Canada highway crossing over the Nipigon River as part of the extension of the Highway 11/17 corridor east of Thunder Bay, Northwestern Ontario, Canada. The precast GFRP-RC bridge-deck panels were designed taking into account flexural and compressive straining actions. Four hundred and eighty GFRP-RC precast panels measuring 3 m x 7 m were fabricated for the bridge deck. Design of the GFRP reinforced concrete bridge deck slab as well as the structural tests of jointed GFRP-RC panels will be presented and discussed.

**Accelerated Bridge Construction: FRP Reinforcement Placed in 2 Hours**

Fiberglass bars have been used to reinforce concrete bridge components since the early 1990s and ACMA has logged over 500 FRP rebar bridge installations across North America. Use of manufactured FRP grids allow accelerated construction schedules, reduced traffic disruption, reduced labor cost and improved job site safety. The purpose of this presentation will be to familiarize the attendee with FRP-reinforced concrete capabilities, rapid construction methods and long term durability of bridge decks. Two bridge decks incorporating FRP grids and SIP forms (installed in 2012 and 2005) will be reviewed to highlight the benefits of FRP composite rebar.

**Columbia River Skywalk: Double Duty Suspension Bridge**

Upon the closure of an old pedestrian bridge, the City of Trail in eastern British Columbia needed another structure to carry multiple utilities across the Columbia River gorge. The result was a suspension pedestrian bridge to connect the two sides of the city, with utilities underneath. Constructability was critical as there was no access from underneath the bridge and no crane to reach over the river, ruling out concrete decking. Prefabricated FRP decking was selected. FRP panels could be easily and quickly conveyed by overhanging cable and carriage to the installation point. The deck panels were fabricated with a crowned surface, integral curbs, rail post attachments, insets for clearance above girder splices, drainage scuppers and a non-slip overlay. Decking was delivered in two widths along with transition panels that wrapped around the steel masts.
Call for Award Nominations

2018 PCI Design Awards
Projects completed within the last three years
(no earlier than January 1, 2014)
Sponsored by Precast/Prestressed Concrete Institute
http://www.pci.org

Submission Deadline: September 18, 2017
http://www.pci.org/About_PCI/Awards/PCI_Design_Awards/

For more information, contact:
William Nickas, WNickas@pci.org
Upcoming Events

2018 PCI Design Awards Webinar
• Tuesday, June 6, 2017: 12:00-1:00 p.m. Eastern; or
• Thursday, June 8, 2017: 3:00-4:00 p.m. Eastern

[an informational guide on how to submit a project into PCI's Design Awards submission site]

Sponsored by Precast/Prestressed Concrete Institute
http://www.pci.org

Online registration:
http://www.pci.org/About_PCI/Awards/PCI_Design_Awards/

For more information, contact:
William Nickas, WNickas@pci.org
April 2017 Quarterly Research Seminar:
Development of Prefabricated Bridge Railings:
Phase I Testing and Results

Researcher Team Presenters:
• Terry Wipf, Ph.D., Chair & Professor, Department of Civil, Construction, and Environmental Engineering, ISU
• Ashley Ecklund, M.S.E., 2016 Graduate, ISU
• Sri Sritharan, Ph.D., Professor, Department of Civil, Construction and Environmental Engineering, ISU
ABC-UTC Social Media
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(http://abc-utc.fiu.edu)
Next Webinar

Thursday, June 29, 2017 (1:00 – 2:00 p.m. Eastern)

Featured Presentation

NCHRP 12-98, Part 1: Tolerances for Prefabricated Bridge Elements and Systems (PBES)

by

Michael P. Culmo, P.E., Vice President of Transportation & Structures, CME Associates Inc.; and Principal Investigator for NCHRP 12-98 Research Project

To register, visit: www.abc-utc.fiu.edu
Today’s Webinar

ABC Announcements (10 minutes)
Featured Presentation (35 minutes)

Virginia’s Rehabilitation of I-64 Dunlap Creek Bridges Using High-Performance Link Slabs and Overlay Materials: ABC Component

Adam Matteo, P.E., Ass’t. State Structure & Bridge Engineer for Maintenance, VDOT; Rex Pearce, P.E., Staunton District Bridge Engineer, VDOT; and Celik Ozyildirim, Ph.D., P.E., Principal Research Scientist, Virginia Transportation Research Council

Question and Answer (15 minutes)

Please post your questions in the question box