

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

Mark Your Calendar

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

Thursday Breakout General Session

Main Ballrooms

8:15-9:00

Welcome

Atorod Azizinamini, ABC-UTC Director
Mark Rosenberg, President, Florida International University
AASHTO SCOBS
FHWA
FDOT
US. DOT UTC Program

9:00-9:30

Key Note Address

Elaine L. Chao, US Secretary of Transportation (Invited)

9:30 - 9:50

Recognition of Travel Scholarship Contributors

Ed Power, HDR
Carlos Duarte, CDR Maguire

9:50-10:15

Recognizing ABC Person of the Year and Best ABC Projects

Carmen Swanwick, Chair, AASHTO SCOBS T-4

10:15-11:30

Poster Presentation and Coffee Break at Exhibit Hall

11:30-1:00

Cash Bar Lunch at Exhibit Hall

Thursday Breakout Sessions- Early Afternoon

Thursday Breakout Sessions- Early Afternoon						
	Room A	Room B	Room C	Room D	Room E	Room F
	SESSION 1	SESSION 2	SESSION 3	SESSION 4	SESSION 5	SESSION 6
	ABC Solutions	ABC Research	UHPC	Earthquake-Resistant ABC	Railway Bridge	Superstructure Replacement
1:00 - 1:30	<p>Folding Metal Bridge with Falcate Modules - KM 02T</p> <p>Nodar Tsigadze, The Institute of Constructions, Special Systems and Engineering Maintenance of Georgian Technical University</p>	<p>Prefabricated Bridge Deck Panels Prepared with Sustainable Fiber Reinforced Concrete</p> <p>Muhammad Saleem, University of Engineering and Technology Lahore</p>	<p>Precast Concrete Deck Panels and Ultra High Performance Concrete Used to Accelerate Construction and Eliminate Expansion Joints on a Bridge Rehabilitation Project in Queens, NY</p> <p>Claudio Fazio, TranSystems</p>	<p>Comparing the Performance of Reinforced Concrete and Concrete Filled Steel Tube Bridge Systems Subjected to Seismic and Tsunami Hazards</p> <p>Max Stephens, University of Auckland</p>	<p>Design and Construction of Travis Spur Rail Bridge Replacement</p> <p>Jing King, SJH Engineering, P.C.</p>	<p>Demonstration of Accelerated Deck Replacement with Full Width Panels</p> <p>Charlie Goodspeed, University of New Hampshire</p>
1:30-2:00	<p>X'Press Bridging</p> <p>Yves Brugeaud, CSI</p>	<p>Shear Strength of Concrete Filled Tubes</p> <p>Dawn Lehman, University of Washington</p>	<p>Accelerated Bridge Construction: Franklin Avenue Bridge Restoration</p> <p>Paul Backer, Hennepin County Transportation Department</p>	<p>Pretensioned, Rocking Columns for Accelerated Bridge Construction in Seismic Regions</p> <p>John Stanton, University of Washington</p>	<p>CSX North Branch Bridge Replacement</p> <p>Adeel Mysorewala, HDR</p>	<p>Redecking of DelDOT BR 1-717, I-95 NB over SR 1/7</p> <p>Jonathan Eberle, AECOM</p>
2:00 - 2:30	<p>Pre-fabricated FRP Reinforcement Shapes for Accelerated Bridge Construction</p> <p>Guillermo Claire, University of Miami</p>	<p>Structural Behavior of Hybrid Concrete-Filled FRP Tubes (HCFFT)</p> <p>Alexandra Hain, University of Connecticut</p>	<p>A New, Simplified Deck-to-Girder Composite Connection using UHPC</p> <p>Zachary Haber, Genex Systems, LLC - FHWA Turner-Fairbank Highway Research Center</p>	<p>Seismic Response of a Precast Bent with Pocket Connections and ECC/UHPC Plastic Hinges</p> <p>Alireza Mohebbi, University of Nevada, Reno</p>	<p>Grade Separation Systems Technology</p> <p>Art Ivantchouk, ART Engineering Inc.</p>	<p>Michigan DOT Use of Prefabricated Decked Spread Box Beams</p> <p>Ali Mahdavi, Michigan DOT</p>
2:30-3:00	<p>A Cost-Effective and Durable Full Depth Precast Deck System - Case Studies</p> <p>Eddie He, AccelBridge</p>	<p>A Modular Hybrid Steel Truss with Composite Deck for Accelerated Bridge Construction</p> <p>Damon Fick, Montana State University</p>	<p>Properties of Field-Cast UHPC-Class Materials</p> <p>Zachary Haber, Genex Systems, LLC - FHWA Turner-Fairbank Highway Research Center</p>	<p>Shake Table Studies of a Two-Span Steel Girder bridge incorporating ABC connections.</p> <p>Elmira Shoushtari, University of Nevada, Reno</p>	<p>Tight Construction Windows for BNSF Railway Bridge 24.8 Replacement in Camas, Washington</p> <p>James Hyland, TranSystems</p>	<p>Reflections on The First Year of The West Virginia Turnpike's ABC Deck Replacement Program</p> <p>Johaann Aakre, HNTB Corporation</p>
3:00-3:30 COFFEE BREAK- EXHIBIT HALLS						
3:30-4:00	<p>Modern Non-Bituminous Flexible Plug Expansion Joints - Minimizing Noise, Maximizing Driver Comfort and Accelerating Bridge Maintenance</p> <p>Robert Bradley, mageba USA</p>	<p>Prefabricated Concrete Barrier Elements for ABC Projects</p> <p>Ashley Eckund, Iowa State University</p>	<p>Ultra High Performance Concrete Connections in Delaware</p> <p>Barry Benton, Delaware DOT</p>	<p>Seismic Performance Assessment of Bridge Columns with Polyurethane Damage-Resistant End Segments and Energy Dissipation Links</p> <p>Mohammad Nikoukalam, University of Colorado, Boulder</p>	<p>ABC Replacement of the Shore Line Railroad Bridge in Boston Massachusetts</p> <p>Phineas Fowler, Louis Berger</p>	<p>Simply Fast Superstructure Replacements for CT's Route 8 Design-Build Project</p> <p>Thomas Laliberte, WSP Parsons Brinckerhoff</p>
4:00-4:30	<p>Demolition Requirements for Bridge Construction Projects - Best Practices Guidelines (Phase I)</p> <p>David Garber, Florida International University</p>	<p>Accelerating Construction of the Pulaski Skyway Rehabilitation with Precast Retaining Walls and Approach Elements</p> <p>Andrew Foden, WSP Parsons Brinckerhoff</p>	<p>Accelerating Construction using Prefabricated Bridge Elements and UHPC</p> <p>Gregory Nault, LafargeHolcim</p>	<p>Accelerated Bridge Construction Project in California- I-10 Tex Wash Replacement</p> <p>Paul Chung, California Department of Transportation</p>	<p>Launching Three Trusses over the BNSF Northtown Rail Yard</p> <p>Martin Furrer, Parsons</p>	<p>Accelerated Superstructure Replacements on the Garden State Parkway</p> <p>Thomas Zink, Gannett Fleming Inc.</p>
4:30-5:00	<p>A Low Cost, Light Weight FRP Composite Bridge Deck</p> <p>Michael Nichols, Structural Composites Inc. & Comsys Divisions of the The Composites Company</p>	<p>Rapid Rehabilitation of Bridge Columns using UHPC</p> <p>Mahsa Farzad, Florida International University</p>	<p>Numerical Simulation of the Behavior of Ultra-High Performance Concrete Bridge Deck Connections Under Static and Fatigue Loading</p> <p>Gregory Nault, LafargeHolcim</p>	<p>Laurel Street Overcrossing - Caltrans' First Multi-span Precast Accelerated Bridge Construction Pilot Project</p> <p>Dorie Mellon, California Department of Transportation</p>	<p>Innovative Railroad Truss Roll-in: Key Component to 3D Engineering Puzzle</p> <p>Diane Campione, Alfred Benesch & Company</p>	<p>Superstructure Replacement of US Route 9 Southbound over Green Street Utilizing Accelerated Bridge Construction</p> <p>David Hicks, Dewberry</p>
5:00-5:30	<p>Compilation of ABC Solutions</p> <p>David Garber, Florida International University</p>	<p>Rapid Rehabilitation of Bridge Girders using UHPC</p> <p>Alireza Valikhani, Florida International University</p>	<p>Ultra-High Performance Concrete using Special Rapid-Hardening Binders</p> <p>Eric Bescher, University of California Los Angeles</p>	<p>Accelerated Bridge Construction using Prefabricated Components and Innovative Materials</p> <p>Bijan Khaleghi, WSDOT</p>	<p>Quality Assurance Test Methods for Accelerated Drilled Shaft Construction</p> <p>George Piscsalko, Pile Dynamics, Inc</p>	<p>Accelerated Superstructure Replacement of SR30 Over Bessemer Avenue</p> <p>James Anderson, HNTB Corp</p>

Friday Breakout Sessions- Early Morning

	Room A	Room B	Room C	Room D	Room E	Room F
	SESSION 1	SESSION 2	SESSION 3	SESSION 4	SESSION 5	SESSION 6
	ABC Solutions	ABC-Tool	ABC Contract/Policy	Monitoring- Instrumentation/Research	Steel Structure	Substructure
8:30-9:00	ABC Cast In Place Concrete Joseph Krajewski, HNTB	Innovative Bridge Designs for Rapid Renewal SHRP2, ABC and State Experiences Finn Hubbard, Fish & Associates Inc.	Interstate 78 Under Clearance Bridge Project, Phases 1 and 2 Gerald Fry, Johnson, Mirmiran & Thompson, Inc	Bayou Lafourche Bridge Instrumentation Program Thomas Weinmann, Geocomp	Experimental Testing and Analytical Assessment of Press-Brake-Formed Steel Tub Girders for Short Span Bridges Karl Barth, West Virginia University	A Precast Bridge Substructure System for Accelerated Bridge Construction (ABC) Zhao Cheng, Iowa State University
9:00-9:30	Accelerated Bascule Bridge Construction George Patton, Hardesty & Hanover, LLC	Using Bridge 3D Models for Automated Rebar Detailing Alexander Mabrich, Bentely Systems	When Winter ABC Is the Only Option: Perspectives on Reconstructing the US Route 1 Viaduct in Bath, ME Steven Hodgdon, VHB	An FRP Bridge after 10 Years Jerome O'Conor, University of Buffalo	Innovative Design & Construction Techniques Lead to a Successful Bridge Replacement in Vermont David Kull, McFarland Johnson	Substructure Considerations for Successful Accelerated Bridge Replacement Projects David Whitmore, Vector Corrosion Technologies
9:30-10:00	Naples, Crockett Bridge Accelerated Replacement Garrett, Gustafson, Maine Department of Transportation	Using Bridge 3D Models After The Design Process Alexander Mabrich, Bentely Systems	Development and Implementation of Mississippi DOT Accelerated Bridge Construction Guidelines James Gregg, HNTB	Acoustic Emission Monitoring and Assessment of Prefabricated and Prestressed Reinforced Concrete Bridge Girders Dryver Huston, University of Vermont	Fully Integral 2 Span Curved Girder Bridge Replacement in 72 days Adam Stockin, WSP/Parsons Brinckerhoff	Innovative In Rehabilitation of Aging Bridge Abutments Bob Barrett, Geostabilization International
10:00-10:30 COFFEE BREAK- EXHIBIT HALLS						
10:30-11:00	Ohio's ABC Demonstration Project with Rapid Bridge Replacement with Tub Girders Integrated with SPS Bridge Deck. Self-Performing Installations of Short Span Bridges with SPS Bridge Decks Rolando Moreau, Intelligent Engineering	Not Your Average PBUs- using ABC Techniques to Solve Complex Bridge Geometry Problems Robert Penfield, VHB	MnDOT's 3 Stage Accelerated Bridge Construction Project Selection Process Paul Rowekamp, Minnesota DOT	Extending Application of New Steel Bridge System to High Seismic Area Amir Sadeghnejad, Florida International University	Darlington Upgrade Project - Accelerated Bridge Construction in Australia Marco Loureiro, Jacobs	Design and Implementation Examples of Concrete-Filled Tubes for Deep Foundations Subjected to Large Lateral (Shear) Loading Dawn Lehman, University of Washington
11:00-11:30	Implementation of A New Precast Concrete Deck System to the Kearney East Bypass Project Fouad Jaber, Nebraska Department of Roads	Towards Simulation-aided Bridge Demolition Planning Seung Jae Lee, Florida International University	Paving the Cowpath: Implementation of the First Accelerated Bridge Construction Policy in the State of Illinois Eric Ozimok, AECOM	New Longitudinal Joint Detail using Normal Strength Concrete Azadeh Jahromi, Florida International University	Construction of Ecuador's First Launched Steel Girder Bridges Mike LaViolette, HDR	Foundation Reuse in ABC Projects Frank Jalinoos, FHWA R & D
11:30-12:00	Selection of Most Practical and Efficient Materials for Link Slabs with ABC Application Behrouz Shafei, Iowa State University	New ABC Seismic Connection using UHPC Mohammadreza Shafieifar, Florida International University	Belden - Laurel, Summary Write-up of ABC Aspect of Project Mark Traynowicz, Nebraska Department of Roads	Durability of UHPC for ABC Applications Kingsley Lau and Mahsa Farzad, Florida International University	Sarah Mildred Long Vertical Lift Bridge Tower Foundation Construction Joseph Orlando, Cianbro Corporation	"Best Practice Manual for Bridge Foundation Reuse" Anil Agrawal, Masoud Sanayei, Nathan Davis, Ehsan Hoomaan & Frank Jalinoos

Friday Breakout Sessions- Afternoon Sessions

	Room A	Room B	Room C	Room D	Room E
	SESSION 1	SESSION 2	SESSION 3	SESSION 4	SESSION 5
	Contractor Perspective/Materials/solutions	Case Study 1	Case Study 2	Case Study 3	Slide In
1:00 - 1:30	Rapid Bridge Replacement Project Delivery: Overview of Design Process and Criteria, Constraints and Schedule Challenges Benjamin Boisvert, P.E., Walsh Granite Joint Venture	Construction challenges of the Route 37 EB Mathis Bridge Rehabilitation Rama Krishnagiri, WSP Parsons Brinckerhoff	Pilot Program of Accelerated Bridge Construction, in Jiangxi, China Zhijian Hu, School of Transportation, Wuhan University of Technology	Accelerated Bridge Construction of Signature Pedestrian Bridge, FIU's University City Prosperity Project Dwight Dempsey, FIGG Bridge Engineers, Inc.	Iowa Highway 1 over Camp Creek Side-In Bridge Construction: Iowa SIBC version 2.0 James Nelson, Iowa Dept. of Transportation
1:30-2:00	Rapid Bridge Replacement Project Construction: Construction Schedule Challenges and ABC Technologies and Uses Charles Zugell, P.E., Walsh Granite Joint Venture	Construction of the Ohio River Bridges East End Crossing Cable-Stayed Bridge Marcos Loizias, JACOBS	ABC Practice of a Concrete Overpass Zhijian Hu, School of Transportation, Wuhan University of Technology	ABC Protecting the Forest in Chapel Hill Patrick Gallagher, Alpha & Omega Group	I-15; Hill Field Road Bridge Replacement Dan Feris, Ames Construction, Inc.
2:00 - 2:30	A Case for Economy of Using More ABC Thomas Stockhausen, President, CDR Bridge Systems LLC	Accelerated Bridge Construction for Replacement of Massachusetts Avenue Over Commonwealth Avenue in Boston Joseph Tierney, Stantec	Roll in Reconstruction of SR over I-24 Christopher Vanek, Parsons Brinckerhoff	TDOT Fast-Fix 8 - Design Details to Reduced Construction Conflicts and Project Risk Ted Kniazewycz, Gresham, Smith & Partners	Slide-In Bridge Replacement of SEPTA's Crum Creek Viaduct Robert Lund, Southeastern Pennsylvania Transportation Authority (SEPTA)
2:30-3:00	Folded Steel Plate Bridge Systems with Lengths Exceeding 100 ft. Atorod Azizinamini, P.E., Florida International University	2-Span Continuous Integral Abutment Bridge Replacement using ABC Robert Elliott, CDR Maguire	Coordination + Efficiency = Accelerated Success Kyle Ervin, HNTB Corporation	ABC Methods for Fast Bridge Replacements in Idaho Leonardo Ruminski, Idaho DOT	Monroe Street Ramp Three-Sided Structure Slide Daniel Fares, Michael Baker International
3:00-3:30					
3:30-4:00	How Steel Press-Brake Tub-Girder Technology Used in Tandem with Hot-Dip Galvanizing Can Accelerate Bridge Construction and Providing Cost Savings Kevin Irving, AZZ Metal Coatings	Jones Road Bridge Replacement Richard Schaefer, HNTB	Dolores River Bridge â€œ Bedrock, CO: Remote Site Solution using Accelerated Bridge Construction Techniques Jonathan Emenheiser, CH2M	Wisconsin Local Roads ABC Bridge System - GRS & PBES William Oliva, Wisconsin Local Roads ABC Bridge System - GRS & PBES	Launching â€œ Innovative Solution to a Challenging Problem Kumar Santhosh, HDR
4:00-4:30	Design of ABC Elements using Lightweight Concrete Reid Castrodale, Castrodale Engineering Consultants PC	Incremental Launching the BELLEAIR CAUSEWAY BRIDGE Approaches Nelson Canjura, HDR	ABC Minimizes Traffic Impacts in the Country's Oldest State Capital City Kathy Crowell, New Mexico Department of Transportation	Accelerated Bridge Construction Methods for Bridge 1-438 Replacement Nicholas Dean, Delaware Department of Transportation - Bridge Design	I-15 & SR-232 Hill Field Road Interchange Improvements Design & Construction, Part 1 (Design) Joshua Sletten, WSP Parsons Brinckerhoff
4:30-5:00	Rheology Limits for Grout Materials used for Precast Bent Cap Pile Pockets under Hot Weather Conditions Raphael Kampmann, FAMU-FSU College of Engineering	Structural Health Monitoring System - New Champlain Bridge Gianni Moor, mageba USA	Charguayacu Bridge Construction Rafael Pezo, MAVISA S.A.	Asbury Creek Culvert Replacement Hormoz Seradj, Oregon Department of Transportation	Moving Complex Bridge Structures using SPMT Steven Sarens & Sean Poynter, Sarens USA, Inc.

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

Wed., Dec. 6 - Eleven, four-hour workshops

W-06: Proven Advanced Technologies Initiative

W-07: Self-Propelled Modular Transporters for ABC Trends, Challenges, and Future Activities

W-08: Today's Precast, Prestressed Concrete Bridge Design

W-09: Recent Developments in Steel ABC Applications

W-10: Innovative Bridge Designs for Rapid Renewal, SHRP2 R04 ABC Toolkit

W-11: Accelerated Bridge Construction in Seismic Regions



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)



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

Upcoming Events

2017 International Bridge Conference



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2017 International Bridge Conference – National Harbor, MD

June 5, 2017 – June 8, 2017

N/A

Eastern Standard Time (EST)

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](#)

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UPCOMING EVENTS

May 18, 2017

[Virginia's Rehabilitation of I-64 Dunlap Creek Bridges Using High-Performance Link Slabs and Overlay Materials: ABC Component](#)

June 2, 2017

[Call for Abstracts - Submission Deadline - 2018 World Steel Bridge](#)



2017 International Bridge Conference – Partial W-06 Program

FRP Composites Impact to Sustainable Design of Concrete Bridges & ABC

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

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.

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
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Brahim.Benmokrane@USherbrooke.ca

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.

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

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.

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

Columbia River Skywalk: Double Duty Suspension Bridge

Upon the closure of an old vehicle 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

Now posted in ABC-UTC Research Seminar Archives

<http://abc-utc.fiu.edu/events/graduate-student-seminars-archives/>

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

(<http://abc-utc.fiu.edu>)



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UNIVERSITY of WASHINGTON



University of Nevada, Reno

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UPCOMING EVENTS

May 18, 2017
Virginia's
Rehabilitation of I-64 Dunlap Creek
Bridges Using High-Performance Link
Slabs and Overlay
Materials: ABC
Component

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(<http://abc-utc.fiu.edu>)

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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

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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