

## 2017 National ABC Conference – Pre-Conference Workshops

### W-05: Foundation Re-use for ABC Projects

Wednesday, December 6, 2017 – 8:00 a.m. to 12:00 p.m.

#### Introduction:

Foundations of existing highway and over river bridges have significant functional values. Hence, reuse of foundations of existing bridges during reconstruction or major rehabilitation of bridges can result in significant savings in costs and time. The main objective of this workshop is to introduce the draft FHWA best practice manual on foundation reuse, discuss various key case studies, and address various engineering solutions and challenges encountered during the foundation reuse process.

#### Workshop Organizers:

Frank Jalinoos, FHWA; and Anil K. Agrawal, Ph.D., P.E., The City College of New York

#### Program:

8:00 a.m.	Welcome and Introduction to Workshop	Moderator – Frank Jalinoos
8:05 a.m.	Best Practice Manual for Foundation Reuse	Anil K. Agrawal, Ph.D., P.E.
8:35 a.m.	Condition Evaluation of Existing Foundations	Frank Jalinoos
9:00 a.m.	Load Assessment for Reuse	Nathan Davis
9:30 a.m.	<i>Break</i>	
9:45 a.m.	NCHRP Synthesis of Common Practice on Foundation Reuse	Andy Boeckmann, P.E.
10:15 a.m.	Corrosion Measurement, Protection and Remaining Service Life	David Whitmore, P.E. and Brian Pailles, Ph.D., P.E.
10:45 a.m.	ABC Case Study – Milton Madison Bridge	Aaron Stover, P.E.
11:30 a.m.	Foundation Reuse at North Torrey Pines Road Bridge, CA using Drilling and Grouting Techniques	John Wolosick, P.E.
12:00 p.m.	Adjourn	

## Speakers & Bios, W-05: Foundation Re-use for ABC Projects

**Frank Jalinoos**, frank.jalinoos@dot.gov (**Organizer & Moderator**)

Frank is a research engineer at the FHWA Turner Fairbank Highway Research Center (TFHRC). He has over 30 years of experience in in-service bridge inspections, structural monitoring, ground/river-bed imaging, remote sensing, and instrumentation. His main area of research includes foundation characterization, long-term performance evaluation of bridges, and post-hazard assessment of bridge networks after extreme events. Frank leads the foundation characterization research program (FCP) at TFHRC.

**Anil K. Agrawal, Ph.D., P.E.**, agrawal@ccny.cuny.edu (**Co-Organizer**)

Anil is Professor of Civil Engineering at the City College of New York and has expertise in broad areas of bridge engineering, including the safety of long-span bridges, earthquake engineering and foundation characterization. He is currently leading the effort to develop the FHWA *Best Practice Manual on Reuse of Bridge Foundations*.

**Andy Boeckmann, P.E.**, boeckmanna@missouri.edu

Andy is a research engineer in the Civil and Environmental Engineering Department at the University of Missouri at Columbia. His research interests include slope stability, deep foundations, load and resistance factor design and reliability, lateral loading of foundations, soil nails and geotechnical asset management. He has authored the recent *NCHRP Synthesis on Current Practices and Guidelines for the Reuse of Bridge Foundations*.

**Nathan Davis**, Nathan.davis@tufts.edu

Nathan is currently a Ph.D. candidate in structural engineering at Tufts University. He previously worked with McPhail Associates, Cambridge, MA as a geotechnical engineer and has experience with the design and construction of earth support, driven piles, and drilled shafts. His primary areas of expertise include load rating of existing foundations, determining the capacity of existing piles, and emerging methods for determining loading on bridge foundations. He is a co-author on the upcoming *Best Practice Manual on Reuse of Bridge Foundations*.

**Brian Pailles, Ph.D., P.E.**, brianp@vcservices.com

Brian is Senior Project Manager for Vector Corrosion Services in Tampa, Florida. He received his Ph.D. from Rutgers University, M.S. at the University of Virginia, and B.S. at Northeastern University. Brian is a registered professional engineer and serves on a number of corrosion and non-destructive testing committees for TRB and ASNT. He has worked on bridges throughout the U.S. and was part of the Long-Term Bridge Performance Program funded by FHWA. His areas of expertise include cathodic protection, non-destructive testing, concrete deterioration, reinforced concrete corrosion, and concrete materials.

**Aaron Stover, P.E.**, Astover@mbakerintl.com

Aaron is a project manager with Michael Baker International. He has extensive specialization in long-span bridges. Aaron was project manager of the Milton-Madison Bridge project that won award for its pioneering work on ABC.

**David Whitmore, P.E.**, DavidW@vector-corrosion.com

David is President and Chief Innovation Officer for Vector Corrosion Technologies, a company which specializes in the repair and corrosion protection of reinforced concrete structures. He is a registered Professional Engineer, a NACE Cathodic Protection Specialist, and he serves on a number of repair, corrosion, sustainability and education committees of ACI, ICRI and NACE. He is a fellow of the American Concrete Institute and the Canadian Society of Civil Engineers. He has been involved with the FHWA on the SHRP and SHRP 2 projects with regard to Electrochemical Chloride Extraction and Cathodic Protection of concrete bridge structures.

**John Wolosick, P.E.**, jrwolosick@haywardbaker.com

John is the director of engineering for the Atlanta office of Hayward Baker Inc. (HBI), where he is responsible for engineering design and business development support for HBI offices nationwide. With over 35 years of experience in geotechnical engineering and contracting, John specializes in slope stabilization, support of excavation, soil nailing, micro pile foundations including underpinning, and all types of grouting.