Keynote Session
Presented Monday, June 14, 2004
Chaired By: Thomas G. Leech, PE, SE, Gannett Fleming, Inc., Pittsburgh, PA
Not Published in these Proceedings

Donald P. Fusilli, Jr., JD, PE, Michael Baker Corporation
Joseph G. Brimmeier, Pennsylvania Turnpike

Featured Agency Session
Presented Monday, June 14, 2004
Chaired By: Gary L. Graham, Pennsylvania Turnpike, Harrisburg, PA

The History of “America’s Dream Highway” – From “A” to “EZ-Pass”
Gary L. Graham, PE, Pennsylvania Turnpike Commission, Harrisburg, PA
IBC-04-01
(Not Published in these Proceedings)

Utilizing Tomorrow’s Technology to Manage “America’s Tunnel Highway”
James L. Stump, PE, Pennsylvania Turnpike Commission, Harrisburg, PA and John E. Tarquinio, PE,
URS Corporation, Bridgeville, PA
IBC-04-02

Rebuilding “America’s 1st Super Highway” – A Total Reconstruction
Donald S. Klingensmith, PE, and John S. Ozimok, PE Pennsylvania Turnpike Commission, Harrisburg, PA
IBC-04-03
(Not Published in these Proceedings)

Susquehanna River Bridge Replacement – “Pennsylvania’s 1st Major Concrete Segmental Bridge”
Brian M. Ranck, PE, Pennsylvania Turnpike Commission, Harrisburg, PA and William J. Rohleder, Jr.,
PE, SE, Figg Bridge Engineers, Inc., Exton, PA
IBC-04-04

Replacement of the Allegheny River, Lehigh River and Pohopoco Creek Bridges – “Fitting Large Bridges in Tight Places”
Donald S. Klingensmith, PE and Bernard J. Zielinski, PE, Pennsylvania Turnpike Commission,
Harrisburg, PA
IBC-04-05

"Expanding the Turnpike” - The Mon/Fayette Expressway and Southern Beltway
Frank J. Kempf, Jr., PE, and Bernard J. Zielinski, PE, Pennsylvania Turnpike Commission, Harrisburg, PA
IBC-04-06

Connecting the Pennsylvania Turnpike and Interstate 95 - “The Missing Link”
Donald S. Klingensmith, PE, Pennsylvania Turnpike, Harrisburg, PA and Ronald DeNadia, P.E.,
Edwards & Kelcy, Inc., Philadelphia, PA
IBC-04-07
Proprietary Session
Presented Monday, June 14, 2004
Chaired By: Eric S. Kline, KTA-Tator, Inc., Pittsburgh, PA

Integrated Hydraulic Solutions for the World's Highest Bridge: Hydraulic Solutions Used on the Millau Viaduct
Luis Sordo, Enerpac, Madrid, Spain; Paul Hohensee, Enerpac, Milwaukee, WI; and Marc Buonomo, Eiffel Construction Metallique, Paris, France
IBC-04-08

Power Washing and Overcoating is Effective and Much Less Expensive than Sandblasting and Completely Repainting Bridges
Craig Ballinger, Termarust Technologies, Vienna, VA and Wayne Senick, Termarust Technologies, Anjou, Montreal, Quebec, Canada
IBC-04-09
(Not Published in these Proceedings)

Material Property Testing of Disk Bearings
Ronald J. Watson, RJ Watson, Inc., Amherst, NY
IBC-04-10

Is There an Alternative to Abrasive Blasting?
Peter K. Fisher, Rust-Oleum Corporation, Vernon Hills, IL
IBC-04-11

Implementing a Computer Bridge Inspection and Management System
Jeremy Shaffer and Michael Schellhase, InspectTech, Pittsburgh, PA
IBC-04-12

Field Testing of New Novel Technique for Controlling Crevice Corrosion on Rocker Assemblies
Wayne Soucie and Nancy Heimann, Elisha Technologies Co. LLC, Moberly, MO
IBC-04-13

A 20 Year Case Study of Polyurethane Waterproofing on Civil Engineering Projects
Adrian J. Pike, Pitchmastic PmB Ltd, Sheffield, UK
IBC-04-14
Rehabilitation Session
Presented Tuesday, June 15, 2004
Chaired By: Richard Connors, PE, PMP, NorthWest Engineering, Inc., Tidioute, PA

Gay Street Bridge, Knoxville, Tennessee: Disassembly and Rehabilitation of 1897 Pin Connected Truss
IBC-04-15

Seismic Analysis, Evaluation and Preliminary Retrofit Design for the Macdonald-Cartier Bridge
Sylvain Montminy, P.Eng., Delcan Corporation, Ottawa, Ontario, Canada; John Stephenson, P.Eng., PE, Region of Waterloo, Kitchener, Ontario, Canada; and Bill Danson, P.Eng, Public Works and Government Services, Gatineau, QC, Canada
IBC-04-16

Inspection and Repair of a Fire Damaged Prestressed Girder Bridge
Richard Stoddard, Washington State DOT, Olympia, WA
IBC-04-17

Suspension Bridge Cable Replacement
Imam Hossain and Peter Sluszka, Ammann & Whitney, New York, NY
IBC-04-18

Rehabilitation and Widening of Bridges on Interstate I-77 over New River, Wythe County, Virginia
Thomas S. Flournoy, PE, TAMS Consultants, Inc., Alexandria, VA; Raj K. Ailaney, PE, Federal Highway Administration, Washington, DC; and Nalin Mathuria, PE, Virginia Department of Transportation, Richmond, VA
IBC-04-19

The Rehabilitation of the Chicago Skyway
Elizabeth Gallagher, SE, PE, and Jixing He, SE, PE, Consoer Townsend Envirodyne Engineers, Inc., Chicago, IL; and Bradley Radovich, SE, PE, Consoer Townsend Envirodyne Engineers, Inc., Woodstock, IL
IBC-04-20
An Innovative Arch Bridge for the City of Des Moines  
Salvatore Di Bernardo and Chris Stine, *Earth Tech, Inc., Chicago, IL*  
IBC-04-21

Replacement of the Third Avenue Swing Bridge over the Harlem River  
Sean A. Bluni, PE and Paul J. Connolly, PE, *Hardesty & Hanover, LLP, New York, NY*  
IBC-04-22

Replacing the Moses Wheeler Bridge  
Richard Ezyk and Kassim Tarhini *STV Incorporated, Stratford, CT*  
IBC-04-23

Rancocas Creek Bridge - A State-of-the-Art Design of a Railroad Tied-Arch Bridge  
Ruchu Hsu and Lori Gale, *Parsons Brinckerhoff, Inc., New York, NY*  
IBC-04-24

Seismic Analysis and Design of the New Tacoma Narrows Suspension Bridge  
Serafim Arzoumanidis, PhD, PE and Ayman Shama, PhD, PE, *Parsons Corporation, New York, NY*;  
Shawn Marlow, PE, *Parsons Corporation, San Francisco, CA*; and Farhang Ostadan, PhD, PE, *Bechtel Group of Companies, San Francisco, CA*  
IBC-04-25

The FHWA Comprehensive Prestressed Concrete Girder Bridge Design Example and Commentary  
Wagdy Wassef and Christopher Smith, *Modjeski and Masters, Inc., Harrisburg, PA*; and Thomas Saad, *FHWA Resource Center, Chicago, IL*  
IBC-04-26
A Aesthetics / Pedestrian Bridges Session
Presented Tuesday, June 15, 2004
Chaired By: Lisle E. Williams, PE, PLS, DMJM+HARRIS, Inc., Pittsburgh, PA

A Quantitative Analysis of Bridge Aesthetics
Linda Figg, Figg Engineering Group, Tallahassee, FL
IBC-04-27

America's Longest Concrete Arch Cable Supported Bridge
W. Denney Pate, PE, Figg Engineering Group, Tallahassee, FL
IBC-04-28

Historic Bridge of Lions Rehabilitation
IBC-04-29

Small Signature Bridges "The Design and Construction of the Lane Avenue Bridge"
Mark D. Sherman, PE, Franklin County Engineers, Columbus, OH
IBC-04-30

The Millenium Garden Avenue Overpass, Innovative Bridge for Republic of Kazakhstan
IBC-04-31

Esplanade Riel – Cable-Stayed Pedestrian Bridge
Craig Michaluk, P.Eng. and Robert van Ginkel, P.Eng, Wardrop Engineering Inc., Winnipeg, MB, Canada; and Bob McDonald, City of Winnipeg, Public Works Dept., Winnipeg, MB, Canada
IBC-04-32

Innovative Curved Cable Stayed Bridge to Provide Pedestrian/Bicycle Trail Connections
Cesar Fernandes, Jr., PhD, PE, SE, Figg Engineering Group, Tallahassee, FL
IBC-04-33

Dynamic Testing of the I-235 Pedestrian Bridge for Human Induced Vibration
David D. Byers, Genesis Structures, Inc., Kansas City, MO; Stoyan Stoyanoff, RWDI, Guelph, Ontario, Canada; and John P. Boschert, HNTB Corporation, Kansas City, MO
IBC-04-34
Materials & Inspection Session
Presented Tuesday, June 15, 2004
Chaired By: Gerald Pitzer, PE, GAI Consultants, Inc., Monroeville, PA

Comparing Load and Resistance Factor Ratings to Load Factor Ratings
Bala Sivakumar, PE, Lichtenstein Consulting Engineers, Inc., Paramus, NJ
IBC-04-35

Shear Capacity of Horizontally Curved Steel Box Girder Bridges
Jian Huang and G. Alan Klevens, Lichtenstein Consulting Engineers, Fort Lauderdale, FL
IBC-04-36

Redundancy of Twin Steel Box Girder Bridges - A Preliminary Study
Sena Kumarasena, Gary Gardner and Joey Breton, HNTB Corporation, Boston, MA
IBC-04-37

A Summary of Six Years Experience Using FRP Composites for Bridge Decks
John M. Hooks, PE, Federal Highway Administration, McLean, VA and Jerome S. O'Connor, PE, Multi-Disciplinary Center for Earthquake Engineering and Research, Buffalo, NY
IBC-04-39

Use of Stainless Steel Reinforcing in Coastal Bridges
Frank J. Nelson, PE, Oregon Department of Transportation, Salem, OR
IBC-04-40

A New Bridge on the Ticino River in Italy: Advantages and Problems Related to the Use of a New Stainless Steel Rebar
Antonio Migliacci, Pietro Crespi and Alberto Franchi, Politecnico of Milano, Milano, Italy; Maurizio Acito, Danilo Campagna and Giovanni Franchi, MSC & Associates, Milano, Italy; and Aldo Bennani, Cogne, Aosta, Italy
IBC-04-41

Stainless Steels for Application to Bridge Construction: A Technical and Economical Comparison with Carbon Steel
Patrick Toussaint, Jean-Pierre Audouard, Pierre Soulignac and Bruno Vincent, INDUSTEEL, Arcelor Group, Le Creusot, France
IBC-04-42
New Carquinez Strait Suspension Bridge
Eugene Thimmhardy, PhD, PE, Michael Marquez, PE and Joe Reyes, PE, California Department of Transportation, Sacramento, CA; Frank Daams, FCI Constructors, Inc./Cleveland Bridge California, Inc., Crocket, CA
IBC-04-43

"Lightening the Load" - The Installation of an Orthotropic Deck System At the Triborough Bridge
James Valenti, PE, Greenman-Pedersen, Inc., Babylon, NY
IBC-04-44

The "Big Pick" - Construction of Church Street South Extension over the New Haven Interlocking and Rail Yard
Paul van Olden, Gannett Fleming, Inc., Manchester, CT; Timothy Young, Parsons Brinckerhoff Quade & Douglas, Inc., Glastonbury, CT; John Hanifin and Christopher Gallucci, Connecticut Department of Transportation, Newington, CT; and John Gemetro, Jr., O&G Industries, Torrington, CT
IBC-04-45

Innovative Historic Structure Rehabilitation - A Construction Engineering Solution for Johnstown, Pennsylvania’s Stonycreek River Bridge
Jared G. Fasick and Thomas G. Leech, PE, SE, Gannett Fleming, Inc., Pittsburgh, PA; Thomas C. Dugan, Alvarez, Inc., Finleyville, PA
IBC-04-46

The Reconstruction of L'Acadie Elevated Roundabout
Olivier Joly and Adel R. Zaki, SNC-Lavalin Inc., Montreal, QC, Canada
IBC-04-47

The Ohio Turnpike Bridges over the Cuyahoga River: Use of Innovative Construction and Materials Concepts
Robert J. Gulyas, FACI, Degussa Building Systems, Cleveland, OH
IBC-04-48

Design and Fabrication of Corrugated Web Girder Bridge
Thomas P. Macioce, PE and Joseph A. Bracken, III, PE, Pennsylvania Department of Transportation, Harrisburg, PA; Alan W. Pense, PhD, Lehigh University, Bethlehem, PA
IBC-04-49

Innovations with Corrugated Webs
Roger Wildt, PE, RW Consulting Group, Bethlehem, PA and Hans Spelten, Spelten Consulting GmbH, Nettetal, Germany
IBC-04-50

Widening of the Atlantic City Expressway Thru-Girder Replacement
IBC-04-51
Long Span Bridges Session
Presented Wednesday, June 16, 2004
Chaired By: James Dwyer, Port Authority of Allegheny County, Pittsburgh, PA

The Panama Canal Second Crossing Paraíso, Panamá
Rafael Manzanarez, Alex Sanjines, Man-Chung Tang, Roupen Donikian, James Duxbury and Jack López-Jara, *TY Lin International, San Francisco, CA*
IBC-04-52

Design of the Main Spans of the Chongqing Caiyanba Bridge
Tom Ho, John Sun, and Man-Chung Tang, *TY Lin International, San Francisco, CA*
IBC-04-53

Aerodynamic Improvements at the Bronx-Whitestone Bridge
IBC-04-54
(Not Published in these Proceedings)

The Saguenay River Suspension Bridge
Vijay Chandra, Joseph Tse and Ruchu Hsu, *Parsons Brinckerhoff, New York, NY* and Adel R. Zaki, *SNC Lavalin, Montreal, Quebec, Canada*
IBC-04-55

Southern Outer Bangkok Ring Road Chao Phraya River Bridge: A Cable-Stayed Bridge Designed for Thailand's Future
Ruchu Hsu, *Parsons Brinckerhoff, Inc., New York, NY*
IBC-04-56
Lessons Learned Session
Presented Wednesday, June 16, 2004
Chaired By: Donald W. Herbert, PE, Pennsylvania Department of Transportation, Uniontown, PA

Anatomy of a Collapse - the July 21st Collapse of the Kinzua Viaduct
IBC-04-61

Blue Ribbon Panel Recommendations for Bridge and Tunnel Security
James D. Cooper, PE, BridgeRD&T, Purcellville, VA; Michael C. Smith, PhD, Science Applications International Corporation, Charlottesville, VA; and Steven L. Ernst, PE, Federal Highway Administration, Washington, DC
IBC-04-62

Forensic Investigation of the SR 422 over the Schuylkill River Girder Fracture
Robert J. Connor and Eric J. Kaufmann, Lehigh University, Bethlehem, PA; Jian Jin, Edwards and Kelcey, West Chester, PA; and Charles H. Davies, Pennsylvania Department of Transportation, King of Prussia, PA
IBC-04-63

Retrofit of Thirteen Bridges With Hoan-Like Details
Ahmad K. Ahmadi, PE, PhD and David Miller, PE, SAI Consulting Engineers, Inc., Pittsburgh, PA; Louis Ruzzi, PE, PENNDOT District 11-0, Pittsburgh, PA
IBC-04-64

Brandywine Bridge Fracture Analysis and Retrofit
John A. Milius, PE, DMJM+HARRIS, Inc., Philadelphia, PA; Jiten Soneji, PE and Gerard Mulderrig, PE, Delaware Department of Transportation, Dover, DE; Michael J. Chajes, PhD, PE, University of Delaware, Newark, DE
IBC-04-65
Design, Part 2
Presented Wednesday, June 16, 2004
Chaired By: Victor E. Bertolina, PE, SAI Consulting Engineers, Pittsburgh, PA

Precast Segmental Technology and the Woodrow Wilson Bridge: Design and Construction of the Fixed Span Piers
Cris Moen, PE and Daniel Teal, PE, Parsons, Baltimore, MD
IBC-04-66

Return to the Basics: Economical Steel Bridge Design
Kenneth J. Wright, PE, HDR Engineering, Inc., Pittsburgh, PA
IBC-04-67

Larreategui Bridge - Learning the Hard Way
Radu Dragan, Christopher Gagnon and Peter Sluszka, Ammann & Whitney Consulting Engineers, PC, New York, NY
IBC-04-68

Marquette Interchange Reconstruction: HPS Twin Box Girder Ramps
Finn Hubbard, Wisconsin DOT, Madison, WI; Tony Shkurti, HNTB, Milwaukee, WI; and Kenneth D. Price, HNTB, Chicago, IL
IBC-04-69

Innovative Design for the Scotia Road Bridge Foundation
Catherine Chia-Calabria, PE, McCormick Taylor, Inc., Philadelphia, PA and Carl F. Henderson, PhD, PE, AGES, Inc., Canonsburg, PA
IBC-04-70

Other Presentations

Improving Fatigue Strength of Cover Plate and Stiffener Details using Ultrasonic Impact Treatment
Sougata Roy, Lehigh University, Bethlehem, PA
Graduate Student Winner

Steel Tied Arch Design for the I-74 Mississippi River Bridge
Laura Mullendore, Sara Hyatt, Ashley Lucas, Washington University in St. Louis, St. Louis, MO
Undergraduate Student Winner
Acito, Maurizio, *MSC & Associates, Milano, Italy* - *A New Bridge on the Ticino River in Italy: Advantages and ProblemsRelated to the Use of a New Stainless Steel Rebar* (IBC-04-41)

Ahmadi, PE, PhD, Ahmad K., *SAI Consulting Engineers, Inc., Pittsburgh, PA* - *Retrofit of Thirteen Bridges With Hoan-Like Details* (IBC-04-64)


Ballinger, Craig, *Termarust Technologies, Vienna, VA* - *Power Washing and Overcoating is Effective and Much Less Expensive than Sandblasting and Completely Repainting Bridges* (IBC-04-09)

Bennani, Aldo, *Cogne, Aosta, Italy* - *A New Bridge on the Ticino River in Italy: Advantages and Problems Related to the Use of a New Stainless Steel Rebar* (IBC-04-41)

Bluni, PE, Sean A., *Hardesty & Hanover, LLP, New York, NY* - *Replacement of the Third Avenue Swing Bridge over the Harlem River* (IBC-04-22)


Breton, Joey, *HNTB, Boston, MA* - *Redundancy of Twin Steel Box Girder Bridges - A Preliminary Study* (IBC-04-37)


Campagna, Danilo, *MSC & Associates, Milano, Italy* - *A New Bridge on the Ticino River in Italy: Advantages and Problems Related to the Use of a New Stainless Steel Rebar* (IBC-04-41)

Chajes, PhD, PE, Michael J., *University of Delaware, Newark, DE* - *Brandywine Bridge Fracture Analysis and Retrofit* (IBC-04-65)


Connolly, PE, Paul J., Hardesty & Hanover, LLP, New York, NY - *Replacement of the Third Avenue Swing Bridge over the Harlem River* (IBC-04-22)

Connor, Robert J., Lehigh University, Bethlehem, PA - *Forensic Investigation of the SR 422 over the Schuylkill River Girder Fracture* (IBC-04-63)

Cooper, PE, James D., BridgeRD&T, Purcellville, VA - *Blue Ribbon Panel Recommendations for Bridge and Tunnel Security* (IBC-04-62)

Crespi, Pietro, Politecnico of Milano, Milano, Italy - *A New Bridge on the Ticino River in Italy: Advantages and Problems Related to the Use of a New Stainless Steel Rebar* (IBC-04-41)

Daams, Frank, FCI Constructors, Inc./Cleveland Bridge California, Inc., Crocket, CA - *New Carquinez Strait Suspension Bridge* (IBC-04-43)

Danson, P.Eng, Bill, Public Works and Government Services, Gatineau, QC, Canada - *Seismic Analysis, Evaluation and Preliminary Retrofit Design for the Macdonald-Cartier Bridge* (IBC-04-16)

Davies, Charles H., Pennsylvania Department of Transportation, King of Prussia, PA - *Forensic Investigation of the SR 422 over the Schuylkill River Girder Fracture* (IBC-04-63)


Di Bernardo, Salvatore, Earth Tech, Inc., Chicago, IL - *An Innovative Arch Bridge for the City of Des Moines* (IBC-04-21)

Donikian, Roupen, TY Lin International, San Francisco, CA - *The Panama Canal Second Crossing Paraíso, Panamá* (IBC-04-52)


Duxbury, James, TY Lin International, San Francisco, CA - *The Panama Canal Second Crossing Paraíso, Panamá* (IBC-04-52)


Ezyk, Richard, STV Incorporated, Stratford, CT - *Replacing the Moses Wheeler Bridge* (IBC-04-23)


Fernandes, Jr., PhD, PE, SE, Cesar, *Figg Engineering Group, Tallahassee, FL* - **Innovative Curved Cable Stayed Bridge to Provide Pedestrian/Bicycle Trail Connections** (IBC-04-33)

Fernandez, Omar, *MTA Bridges & Tunnels, New York, NY* - **Aerodynamic Improvements at the Bronx-Whitestone Bridge** (IBC-04-54)

Figg, Linda, *Figg Engineering Group, Tallahassee, FL* - **A Quantitative Analysis of Bridge Aesthetics** (IBC-04-27)

Fisher, Peter K., *Rust-Oleum, Vernon Hills, IL* - **Is There an Alternative to Abrasive Blasting?** (IBC-04-11)


Franchi, Alberto, *Politecnico of Milano, Milano, Italy* - **A New Bridge on the Ticino River in Italy: Advantages and Problems Related to the Use of a New Stainless Steel Rebar** (IBC-04-41)

Franchi, Giovanni, *MSC & Associates, Milano, Italy* - **A New Bridge on the Ticino River in Italy: Advantages and Problems Related to the Use of a New Stainless Steel Rebar** (IBC-04-41)


Gallagher, SE, PE, Elizabeth, *Consoer Townsend Envirodyne Engineers, Inc., Chicago, IL* - **The Rehabilitation of the Chicago Skyway** (IBC-04-20)

Gallucci, Christopher, *Connecticut Department of Transportation, Newington, CT* - **The "Big Pick" - Construction of Church Street South Extension over the New Haven Interlocking and Rail Yard** (IBC-04-45)

Gardner, Gary, *HNTB, Boston, MA* - **Redundancy of Twin Steel Box Girder Bridges - A Preliminary Study** (IBC-04-37)

Gemetro, Jr., John, *O&G Industries, Torrington, CT* - **The "Big Pick" - Construction of Church Street South Extension over the New Haven Interlocking and Rail Yard** (IBC-04-45)

Graham, PE, Gary L., *Pennsylvania Turnpike, Harrisburg, PA* - **The History of “America’s Dream Highway” – From “A” to “EZ-Pass”** (IBC-04-01)

Hanifin, John, Connecticut Department of Transportation, Newington, CT - The "Big Pick" - Construction of Church Street South Extension over the New Haven Interlocking and Rail Yard (IBC-04-45)

He, SE, PE, Jixing, Consoer Townsend Envirodyne Engineers, Inc., Chicago, IL - The Rehabilitation of the Chicago Skyway (IBC-04-20)

Heimann, Nancy, Elisha Technologies Co. LLC, Moberly, MO - Field Testing of New Novel Technique for Controlling Crevice Corrosion on Rocker Assemblies (IBC-04-13)

Henderson, PhD, PE, Carl F., AGES, Inc., Canonsburg, PA - Innovative Design for the Scotia Road Bridge Foundation (IBC-04-70)

Ho, Tom, TY Lin International, San Francisco, CA - Design of the Main Spans of the Chongqing Caiyanba Bridge (IBC-04-53)


Hooks, PE, John M., Federal Highway Administration, McLean, VA - A Summary of Six Years Experience Using FRP Composites for Bridge Decks (IBC-04-39)

Hossain, Imam, Ammann & Whitney, New York, NY - Suspension Bridge Cable Replacement (IBC-04-18)


Hsu, Ruchu, Parsons Brinckerhoff Inc., New York, NY - The Saguenay River Suspension Bridge (IBC-04-55)

Hsu, Ruchu, Parsons Brinckerhoff, Inc., New York, NY - Southern Outer Bangkok Ring Road Chao Phraya River Bridge: A Cable-Stayed Bridge Designed for Thailand's Future (IBC-04-56)

Huang, Jian, Lichtenstein Consulting Engineers, Fort Lauderdale, FL - Shear Capacity of Horizontally Curved Steel Box Girder Bridges (IBC-04-36)

Hubbard, Finn, Wisconsin DOT, Madison, WI - Marquette Interchange Reconstruction: HPS Twin Box Girder Ramps (IBC-04-69)

Hyatt, Sara, Washington University in St. Louis, St. Louis, MO - Steel Tied Arch Design for the I-74 Mississippi River Bridge (Undergraduate Student Winner)

Jin, Jian, Edwards and Kelcey, West Chester, PA - Forensic Investigation of the SR 422 over the Schuylkill River Girder Fracture (IBC-04-63)

Joly, Olivier, SNC-Lavalin Inc., Montreal, QC, Canada - The Reconstruction of L'Acadie Elevated Roundabout (IBC-04-47)

Kaufmann, Eric J., Lehigh University, Bethlehem, PA - Forensic Investigation of the SR 422 over the Schuylkill River Girder Fracture (IBC-04-63)

Kempf, Jr., PE, Frank J., Pennsylvania Turnpike, Harrisburg, PA - "Expanding the Turnpike" - The Mon Fayette Expressway and Southern Beltway (IBC-04-06)

Kleven, G. Alan, Lichtenstein Consulting Engineers, Fort Lauderdale, FL - Shear Capacity of Horizontally Curved Steel Box Girder Bridges (IBC-04-36)
Klingensmith, P.E., Donald S., Pennsylvania Turnpike, Harrisburg, PA - Rebuilding “America’s 1st Super Highway” – A Total Reconstruction (IBC-04-03)
Klingensmith, P.E., Donald S., Pennsylvania Turnpike, Harrisburg, PA - Replacement of the Allegheny River, Lehigh River and Pohopoco Creek Bridges – “Fitting Large Bridges in Tight Places” (IBC-04-05)
Klingensmith, P.E., Donald S., Pennsylvania Turnpike, Harrisburg, PA - Connecting the Pennsylvania Turnpike and Interstate 95 - “The Missing Link” (IBC-04-07)

Kumarasena, Sena, HNTB Corporation, Boston, MA - Redundancy of Twin Steel Box Girder Bridges - A Preliminary Study (IBC-04-37)


López-Jara, Jack, TY Lin International, San Francisco, CA - The Panama Canal Second Crossing Paraíso, Panamá (IBC-04-52)

Lucas, Ashley, Washington University in St. Louis, St. Louis, MO - Steel Tied Arch Design for the I-74 Mississippi River Bridge (Undergraduate Student Winner)

Macioce, PE, Thomas P., Pennsylvania Department of Transportation, Harrisburg, PA - Design and Fabrication of Corrugated Web Girder Bridge (IBC-04-49)

Manzanarez, Rafael, TY Lin International, San Francisco, CA - The Panama Canal Second Crossing Paraíso, Panamá (IBC-04-52)

Marlow, S., Parsons Transportation Group, San Francisco, CA - Seismic Analysis and Design of the New Tacoma Narrows Suspension Bridge (IBC-04-25)

Marquez, PE, Michael, California Department of Transportation, Sacramento, CA - New Carquinez Strait Suspension Bridge (IBC-04-43)

Mathuria, PE, Nalin, Virginia Department of Transportation, Richmond, VA - Rehabilitation and Widening of Bridges on Interstate I-77 over New River, Wythe County, Virginia (IBC-04-19)

McDonald, Bob, City of Winnipeg, Public Works Dept., Winnipeg, MB, Canada - Esplanade Riel - Cable Stayed Pedestrian Bridge (IBC-04-32)

Michaluk, P.Eng., Craig, Wardrop Engineering Inc., Winnipeg, MB, Canada - Esplanade Riel - Cable Stayed Pedestrian Bridge (IBC-04-32)

Migliacci, Antonio, Politecnico of Milano, Milano, Italy - A New Bridge on the Ticino River in Italy: Advantages and Problems Related to the Use of a New Stainless Steel Rebar (IBC-04-41)


Miller, PE, David, SAI Consulting Engineers, Inc., Pittsburgh, PA - Retrofit of Thirteen Bridges With Hoan-Like Details (IBC-04-64)

Moen, PE, Cris, Parsons, Baltimore, MD - Precast Segmental Technology and the Woodrow Wilson Bridge: Design and Construction of the Fixed Span Piers (IBC-04-66)
Montminy, P.Eng., Sylvain, Delcan Corporation, Ottawa, Ontario, Canada - Seismic Analysis, Evaluation and Preliminary Retrofit Design for the Macdonald-Cartier Bridge (IBC-04-16)

Mulderrig, PE, Gerard, Delaware Department of Transportation, Dover, DE - Brandwyine Bridge Fracture Analysis and Retrofit (IBC-04-65)

Mullendore, Laura, Washington University in St. Louis, St. Louis, MO - Steel Tied Arch Design for the I-74 Mississippi River Bridge (Undergraduate Student Winner)


Nelson, PE, Frank J., Oregon Department of Transportation, Salem, OR - Use of Stainless Steel Reinforcing in Coastal Bridges (IBC-04-40)

O'Connor, PE, Jerome S., Multi-Disciplinary Center for Earthquake Engineering and Research, Buffalo, NY - A Summary of Six Years Experience Using FRP Composites for Bridge Decks (IBC-04-39)

Ostadan, F., Bechtel Group of Companies, San Francisco, CA - Seismic Analysis and Design of the New Tacoma Narrows Suspension Bridge (IBC-04-25)

Ozimok, P. E., John S., Pennsylvania Turnpike, Harrisburg, PA - Rebuilding “America’s 1st Super Highway” – A Total Reconstruction (IBC-04-03)

Pate, PE, W. Denney, Figg Engineering Group, Tallahassee, FL - America's Longest Concrete Arch Cable Supported Bridge (IBC-04-28)

Pense, PhD, Alan W., Lehigh University, Bethlehem, PA - Design and Fabrication of Corrugated Web Girder Bridge (IBC-04-49)

Pike, Adrian J., Pitchmastic PmB Ltd, Sheffield, UK - A 20 Year Case Study of Polyurethane Waterproofing on Civil Engineering Projects (IBC-04-14)

Price, Kenneth D., HNTB, Chicago, IL - Marquette Interchange Reconstruction: HPS Twin Box Girder Ramps (IBC-04-69)


Radovich, SE, PE, Bradley, Consoer Townsend Envirodyne Engineers, Inc., Woodstock, IL - The Rehabilitation of the Chicago Skyway (IBC-04-20)

Rajlic, P.Eng, Biljana, Acres International Limited, Oakville, Ontario, Canada - The Millenium Garden Avenue Overpass, Innovative Bridge for Republic of Kazakhstan (IBC-04-31)

Ranck, P. E., Brian M., Pennsylvania Turnpike, Harrisburg, PA - Susquehanna River Bridge Replacement – “Pennsylvania’s 1st Major Concrete Segmental Bridge” (IBC-04-04)
Reyes, PE, Joe, *California Department of Transportation, Richmond, CA* - *New Carquinez Strait Suspension Bridge* (IBC-04-43)


Rohleder, Jr., PE, SE, William J., *Figg Bridge Engineers, Inc., Exton, PA* - *Susquehanna River Bridge Replacement – “Pennsylvania’s 1st Major Concrete Segmental Bridge”* (IBC-04-04)

Roy, Sougata, *Lehigh University, Bethlehem, PA* - *Improving Fatigue Strength of Cover Plate and Stiffener Details using Ultrasonic Impact Treatment* (Graduate Student Winner)

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