MONDAY, AUGUST 28TH, 2006

7:00am — **REGISTRATION: ATRIUM & FOYER**

8:00-10:10am — ***Welcome and Keynote Session located in Broadway Act III & IV.***

8:00-8:10am — **BRIDGE ENGINEERING ASSOCIATION CHAIRMAN'S WELCOME:**
Dr. Khaled M. Mahmoud, PE, President
Bridge Technology Consulting, New York City, USA

8:10-8:20am — **OPENING REMARKS:**
William J. Moreau, PE, Chief Engineer
New York State Bridge Authority, USA

8:20-10:10am *Broadway Act III & IV* — **KEYNOTE SESSION**

Forth Road Bridge - maintenance challenges A. A. S. Andrew, and B. R. Colford, Forth Estuary Transport Authority, Scotland, UK

Repainting of Seto-Ohashi Bridge for increase of durability K. Kawaguchi, Y. Nagao, and T. Sugimoto, Honshu-Shikoku Bridge Expressway Co., Ltd, Japan

Rehabilitation of the lower roadway of the Manhattan Bridge H. D. Perahia, J. Patel, H. Ahmed, and A. Razzaq, New York City Department of Transportation, USA

10:15-10:40am — **COFFEE BREAK: ATRIUM & FOYER**

10:45-12:30PM *Broadway Act III & IV* — **SESSION 1: PLANNING STUDIES & STRENGTH EVALUATION**

Planning and engineering for the future: capacity increase and cable replacement at the Bronx-Whitestone Bridge J. Lorentzson, TBTA, P. Nietzschmann, Parsons Brinckerhoff Quade & Douglas, Inc., G. Fanjiang, Weidlinger Associates, and C. Gagnon, Ammann & Whitney, USA

Planning and design of Jeokgeum Grand Bridge S. Y. Park, M. J. Lee, Yooshin Engineering Corp., and J. H. Kim, DAELIM Industrial Co. Ltd., South Korea

Evaluation of the remaining strength of bridge cables K. Mahmoud, Bridge Technology Consulting, USA

12:45 -1:45PM — **LUNCH: BROADWAY ACT I & II**

2:00-3:45pm *Broadway Act III & IV* — **SESSION 2: CABLE REINFORCEMENT & DURABILITY**

Bear Mountain Bridge cable reinforcement W. J. Moreau, New York State Bridge Authority Highland, R. Dragan, and P. Sluszka, Ammann & Whitney, USA

2:00-3:45pm *Broadway Act III & IV*

A conceptual model of bridge service life J. Chang, MTA Bridges and Tunnels and M. J. Garvin, Virginia Polytechnic and State University, USA

10 Years of experience with CFRP stay cables U. Meier, EMPA Swiss Federal Laboratories for Materials Research, Switzerland

3:45-4:10pm **COFFEE BREAK: ATRIUM & FOYER**

4:15-6:00pm *Broadway Act III & IV*

SESSION 3: BRIDGE DESIGN & CONSTRUCTION

A construction solution for self anchored suspension bridges R. A. Lawrie and H. Huang, Lawrie & Associates, LLC, USA

Second bridge over the Orinoco - design, construction and operation K. J. Humpf, Leonhardt, Andrä und Partner GmbH, Germany

Efficient deck systems for cable stayed bridges Sena Kumarasena, HNTB, USA

6:00-8:00pm **RECEPTION: ATRIUM & FOYER**

TUESDAY, AUGUST 29TH, 2006

7:00am **REGISTRATION: ATRIUM & FOYER**

8:15-9:45am *Broadway Act III & IV*

SESSION 4: FRACTURE BEHAVIOR OF BRIDGE WIRE

Wire fractures in locked coil cables K. Gjerding-Smith, Consulting Engineers Haug og Blom-Bakke AS, R. Johnsen, NTNU, H. I. Lange, SINTEF, B. H. Leinum, Det Norske Veritas, G. Gundersen, B. Isaksen and G. Nærum, Norwegian Public Roads Administration, Oslo, Norway

Evaluation of the Fracture Toughness of the Mid-Hudson Bridge cable wire K. Mahmoud, Bridge Technology Consulting, and W. J. Moreau, New York State Bridge Authority, USA

Fracture Toughness and hydrogen embrittlement of galvanized high strength bridge wire S. Hobson, W. J. Rudd, Corus RD&T, M. Bechtold, C. O'Connor, Bridon International Limited, UK

9:45-10:10am **COFFEE BREAK: ATRIUM & FOYER**

10:15-12:15pm
Broadway Act III

SESSION 5A: INSTRUMENTATION, TESTING & MONITORING

Instrumentation and monitoring of critical structural elements unique to suspension bridges G. Hovhanessian and E. Laurent, ADVITAM, France

Non-destructive testing of suspender ropes with magnetostriction M. S. Higgins, Pure Technologies, USA

Wire test results for three suspension bridge cables R. M. Mayrbaurl, Weidlinger Associates, Inc., USA

Inspection and monitoring of cable stayed structures - design, implementation & performance G. Hovhanessian, ADVITAM, France and J. Stieb, ADVITAM, USA

10:15-12:15pm
Broadway Act IV

SESSION 5B: MAINTENANCE & SERVICEABILITY OF CABLE SYSTEMS

Forth Road Bridge - first internal inspection, strength evaluation, acoustic monitoring and dehumidification of the main cables B. R. Colford, Forth Estuary Transport Authority, Scotland, C. P. E. Cocksedge, Faber Maunsell Consulting Engineers, England

Prevention of main cable corrosion by dehumidification M. L. Bloomstine and O. Sørensen, COWI A/S, Denmark

Dehumidification of George Washington Bridge anchorage chambers R. Sansone, Ammann & Whitney, Consulting Engineers, PC, J. R. Jenal, BJLJ Engineers & Architects, PC, A. Minhas and S. Sloan, The Port Authority of NY & NJ, USA

A rational method for determining allowable stress in stay cables R. McCabe, HNTB, USA

12:20-1:15pm

LUNCH: BROADWAY ACT I & II

1:30-3:00pm
Broadway Act III

SESSION 6A: INNOVATIVE BRIDGE TECHNOLOGY

Stonecutters Bridge - designing for operations M. Carter and N. Hussain, Ove Arup & Partners, Hong Kong

Cradle system provides flexibility and durability W. Denney Pate, FIGG, USA

Innovative cable supported pedestrian bridges T. Zoli, HNTB, USA

1:30-3:00pm
Broadway Act IV

SESSION 6B: FATIGUE & VIBRATION PERFORMANCE

A monumental bridge with a problem left by design A. B. Mehrabi, Bridge Engineering Solutions, Inc., USA

Cable vibrations at Dubrovnik Bridge Z. Šavor, J. Radic, and G. Hrelja, University of Zagreb, Croatia

Mitigation and monitoring of cable vibrations for cable stayed bridges D. M. Barrett, Modjeski and Masters, Inc., USA

3:00-3:25pm **COFFEE BREAK: ATRIUM & FOYER**

3:30-5:00pm
Broadway Act III

SESSION 7A: WIRE ROPE & STRAND APPLICATIONS

Electromagnetic inspection of wire ropes - vertical lift bridges D. R. Hall, Acuren Inspection, Inc., USA

Wire rope and strand assemblies in bridge applications T. W. Klein, Wire Rope Corporation of America, Inc., USA

Epoxy coated & filled prestressing steel strand cables Y. Shinichi, Sumiden Wire Products Corporation, USA

3:30-5:00pm
Broadway Act IV

SESSION 7B: AESTHETIC & HISTORIC BRIDGES

High tech cable stayed bridge with appropriate historic appearance W. Jay Rohleder, Jr., FIGG, USA

Roebling's railway suspension bridge over Niagara Gorge K. Gandhi, Gandhi Engineering, Inc., USA

The Quinnipiac / Pearl Harbor Memorial Bridge: aesthetic opportunities for extradosed bridges T. Piotrowski and J. Fox, H2L2 Architects/Planners, LLP, USA

5:00-6:00pm
Broadway Act III and IV

PANEL DISCUSSION

6:00pm **CONFERENCE ADJOURNS**

LRFD WORKSHOP TUESDAY, AUGUST 29TH, 2006

8:00-8:05am *Times Square I*	**BRIDGE ENGINEERING ASSOCIATION CHAIRMAN'S WELCOME:** **Dr. Khaled M. Mahmoud, PE, President Bridge Technology Consulting, New York City, USA**
8:05-12:20pm *Times Square I*	**MORNING SESSION**
8:05-8:45am	**The Past, Present and Future of AASHTO LRFD** Dr. John M. Kulicki, Modjeski and Masters, Inc., USA
8:45-9:45am	**Summary of Loads and load Combination** Professor Dennis R. Mertz, University of Delaware, USA
9:45-10:10am	**COFFEE BREAK: ATRIUM & FOYER**
10:15-11:00am	**Specifications and Guidelines for the Design of Curved Steel Girder Bridges** Dr. John M. Kulicki, Modjeski and Masters, Inc., USA
11:00-12:15pm	**Horizontally Curved Steel Bridge Design Example** Dr. Wagdy G. Wassef, Modjeski and Masters, Inc., USA
12:20-1:15pm	**LUNCH: BROADWAY ACT I & II**
1:30-5:00pm	**AFTERNOON SESSION**
1:30-3:00pm *Times Square I*	**LRFD Concrete Bridge Design Example** Professor Dennis R. Mertz, University of Delaware, USA
3:00-3:25pm	**COFFEE BREAK: ATRIUM & FOYER**
3:30-5:00pm	**Introduction to Load and Resistance Factor Rating (LRFR)** Professor Dennis R. Mertz, University of Delaware, USA
5:00pm	**WORKSHOP ADJOURNS**