Keynote Speakers

LINEA LAIRD
Program Administrator (Alaskan Way Viaduct Replacement Program), WSDOT

Linea Laird is the Program Administrator for the Alaskan Way Viaduct (AWV) Replacement Program. She oversees all aspects of the Program as well as the SR 99 Tunnel Project—including procurement strategies, contract delivery, and coordination and communication with key stakeholders. She is also responsible for developing direction and coordinating policy issues at a project level and interacting on policy issues at a statewide level.

Linea has worked for WSDOT for more than 30 years. Prior to her role on the AWV Program, Linea was the State Construction Engineer, where she was responsible for overseeing the day-to-day operations as well as the strategic direction, leadership, and policy for the WSDOT State Construction Program. Linea served as a co-lead for the work zone safety taskforce and was active at the national level with the Transportation Research Board Committees, the American Association of State Highway and Transportation Officials Subcommittee on Construction, and the National Cooperative Highway Research Program studies.

For eight years, Linea was WSDOT Project Manager for the Tacoma Narrows Bridge Project. As Project Manager, she was responsible for overseeing all aspects of the project. Prior to her time with the Tacoma Narrows Bridge Project, she also served as State Maintenance Engineer and as Olympic Region Program Manager.

LEE MARSH, PH.D., P.E.
Principal and Seismic Specialist, BergerABAM

Lee Marsh is a principal and seismic specialist for BergerABAM and has worked on virtually all their bridges and elevated guideways since joining the firm in 1994. Lee began his career some 30 years ago working in the nuclear industry performing dynamic analysis of piping systems. He went on to earn a doctorate from the University of Washington (UW) in earthquake engineering and served on the faculty at Washington State University (WSU) before joining BergerABAM. Lee's practice has included seismic design services for a variety of projects ranging from bridges, transit guideways, marine structures, to buildings and specialized projects, such as cranes for nuclear power plants. However, his primary area of practice and research has been bridges. At both UW and WSU his focus was on large-scale testing of bridge structures, and since joining BergerABAM, he has blended research with practice and code-development efforts through numerous NCHRP projects, including work on projects to update the AASHTO seismic design provisions, which ultimately culminated in the adoption of the Guide Specifications for LRFD Seismic Bridge Design (seismic guide specifications). Lee has also developed seismic design training, including earthquake engineering courses at both WSU and UW. At BergerABAM, he was the lead developer for two versions of National Highway Institute’s (NHI) courses focusing on seismic design of bridges—one course in the mid-1990s, complete with seven design examples, and the currently available NHI Course 130093, including collaboration on the companion geotechnically focused course. Recently, Lee was the lead author of two NCHRP synthesis reports, one for accelerated bridge construction in high seismic areas (Report 698) and one on performance-based seismic design of bridges (Synthesis 440). These reports take stock of the current state-of-practice and look forward by identifying knowledge gaps that will need to be bridged to move to the next level of practice. Lee assists the AASHTO T-3 Committee in maintaining the seismic provisions in both the LRFD
Bridge Design Specifications and the seismic guide specifications. Lee’s project experience ranges from seismic retrofit of roadway bridges intertwined with the terminal building at SeaTac airport, to one of the first spliced-girder bridges in Washington, to criteria development for Seattle DOT’s Phase II bridge retrofit program, to a recently completed Highways for LIFE project to develop and bring to market a precast bent system for high seismic regions.

KELLEY REHM
Program Manager (Bridges and Structures), AASHTO

Kelley C. Rehm is a licensed Professional Engineer serving as the Program Manager for Bridges and Structures with the non-profit association AASHTO (America Association of State Highway and Transportation Officials). She works nationally with all 50 state Departments of Transportation and their Bridge Divisions to manage updates to codes and specifications that are federally mandated for use in bridge design, construction and inspection. She also helps to promote needed research in the area of bridges and structures. Kelley has over 17 years experience in bridge design, construction and management working both as a private consultant and before that as a design engineer with the Kentucky Transportation Cabinet. Kelley also is a contractor in independent research with NCHRP, and other consultants and Universities.

Currently she is a member of the Board of Directors for the non-profit organization Bridging the Gap Africa. This organization builds footbridges for rural communities in East Africa where walking is the main mode of transportation. These footbridges help prevent deaths from drowning and animal attacks as well as connect the communities to marketplaces, schools and healthcare. Kelley is the lead engineer for the organization and the chair of the Technical Advisory Committee.

Kelley has a Bachelors Degree in Civil Engineering from the University of Kentucky as well as a Masters Degree in Structures also from the University of Kentucky.

Tuesday, September 3
Noon – 6:00 pm EXHIBITOR MOVE-IN
6:00 – 8:00 pm ICE BREAKER RECEPTION

Wednesday, September 4
7:30 am – 5:00 pm EXHIBIT HALL OPEN
8:30 – 10:00 am WELCOME & OPENING REMARKS
- Welcome to Washington
  WSDOT Chief Engineer
- Overview of WSDOT Bridge Program
  Pasco Bakotich
- Keynote: Overview of the Alaskan Way Project
  Linea Laird, Washington State Department of Transportation
10:00 – 10:30 am COFFEE BREAK (Exhibit Hall)
10:30 – Noon TECHNICAL SESSIONS
2A MAJOR BRIDGE DESIGN PROJECTS
- The SR520 HOV Eastside Project, Building Communities Together
  Heidi A. Clayville, David Evans & Associates

- I-405 Sepulveda Pass Widening Design-Build
  Y. Nein Wang, HNTB Corporation
  Aamir Durrani, HNTB Corporation
  Sherman Lee, Kiewit Infrastructure West Co.
- Replacement of the Sandy River 1-84 Bridges
  Douglas Johnson, David Evans & Associates

2B ACCELERATED BRIDGE CONSTRUCTION
- The Shoo-Fly: Sliding the Sellwood Bridge
  Scott Nettleton, TY Lin
  Anthony Calcagno, TY Lin
  Kenneth Huntley, Multnomah County, OR
- Skagit River Bridge SR5/712 Collapse and Repair
  Geoff Swett, Washington State Department of Transportation
- Design and Construction of the SR 99 Atlantic Street Bypass
  Nicholas Rodda, Washington State Department of Transportation

2C SEISMIC DESIGN CRITERIA
- Performance Objectives and the AASHTO Guide Specifications for the LRFD Seismic Bridge Design
  Elmer Marx, Alaska Department of Transportation
- Seismic Design Criteria of a Cable-Stayed Bridge: An Owner’s Perspective
  Paul Chung, CalTrans
  Jason J.Q. Tung, CalTrans
### 2D BRIDGE REHABILITATION

- Hagwilget Suspension Bridge Refurbishment, Hazelton, BC  
  Jeff Mellor, Buckland & Taylor
- Rehabilitation of Long Span Bridges  
  Adrian Ciolko, KPFF Consulting Engineers  
  Chris Ligozio, KPFF Consulting Engineers
- Bayonne Bridge “Raise the Roadway” Project  
  Chester Werts, HDR Engineering Inc.

### 3A MAJOR BRIDGE DESIGN PROJECTS

- Columbia River Crossing Project  
  Matt Deml, HDR Engineering Inc.  
  Frank Green, Washington State Department of Transportation
- Bridgelation on the I-4/Selmon Expressway Connector Project  
  Morad G Ghali, Atkins Global  
  Kenneth C. Saindon, Atkins Global
- The Truss Span of the S. Omaha, Missouri River Bridge  
  Kevin R. Eisenbeis, Burns & McDonnel

### 3B ACCELERATED BRIDGE CONSTRUCTION

- Time is of the Essence: OR43 Oregon City Bridge Rehab Scheduling  
  Daniell Pavela, T.Y. Lin
- The Use of Accelerated Bridge Construction Techniques in the New Fraser Heights Bridge, Surrey, BC, Canada  
  Uri Wexler, Associated Engineering  
  David Harvey, Associated Engineering  
  Don Kennedy, Associated Engineering
- Accelerating Bridge Construction: Recent Applications in California  
  Paul Chung, CalTrans  
  J.W. Fang, CalTrans

### 3C SEISMIC DESIGN

- Design of the SRS20 West Approach Bridge Using Seismic Isolation Bearings  
  Greg Knutson, HDR Engineering Inc.  
  Paul Bott, HDR Engineering, Inc.
- As-Built Seismic Analysis of the Golden Gate Bridge Main Suspension Spans  
  Ted Bush, HDR Engineering, Inc.  
  Kuang Lim, HDR Engineering Inc.
- Non-Linear Seismic Behavior of a Highly Horizontally Curved Bridge: A Case Study of Yerba Buena Island (YBI) WB On-Ramps, Bay Bridge, San Francisco, CA  
  Young Deng, Moffat & Nichol  
  Tom Lee, Moffat & Nichol  
  Gernot Konar, Moffat & Nichol  
  Omar Jaradat, Moffat & Nichol
- Emergency Stabilization and Rehabilitation of the Simpson Bridge  
  Anthony Mizumori, Washington State Department of Transportation
- State of the Practice and Advances in Buried Bridges  
  Joel Hahm, Big R Bridge
- Remote Bridges in Alaska  
  Travis Arndt, Alaska Department of Transportation  
  Leslie Daugherty, Alaska Department of Transportation
- A Constructible Bridge Bent Designed to Re-center After an Earthquake  
  John Stanton, University of Washington  
  Marc Eberhard, University of Washington  
  Philip Davis, University of Washington  
  Travis Thonstad, University of Washington  
  Bryan Kennedy, University of Washington  
  Jeffrey Schaefer, University of Washington
- ABCs of Crack-Less Bridge Decks, with Applications in Accelerated Bridge Construction  
  Sonny Fereira, CalTrans
- How to Specify and Construct Durable Crack Free Bridge Decks: Washington State Experience  
  Mark Goines, Washington State Department of Transportation  
  Mohammad Sheikhzadeh, David Evans & Associates
### 4C SEISMIC RETROFIT

- **Seismic Retrofit Program Priorities and Options for Oregon**
  - Bruce Johnson, Oregon Department of Transportation

- **Seismic Retrofit of Dumbarton Toll Bridge**
  - Tariq Masroor, CalTrans
  - Steve Mitchell, CalTrans
  - Jay Quiogue, CalTrans

- **Operability Retrofits for BART’s North Oakland Aerial Guideways**
  - Hassen Beshir, BART
  - Matthew Paradis, HNTB Corporation

### 4D BRIDGE LOAD RATING

- **Improved Load Rating of Existing Bridges for Permit Trucks**
  - Vietanh Phung, Tran Tech Engineering
  - Kash Nikzad, Tran Tech Engineering

- **Load Rating for Two Steel Bridges**
  - Jingjuan Li, KPFF Consulting Engineers

- **Methods for Improving Load Ratings of Existing Bridges**
  - Scott Loptson, Morrison Hershfield
  - Kent Laroze, Morrison Hershfield
  - Ruby Kwan, Morrison Hershfield

5:00–8:00 pm EXHIBITOR RECEPTION (Exhibit Hall)

### Thursday, September 5

7:30 am–5:00 pm EXHIBIT HALL OPEN

8:30–10:00 am TECHNICAL SESSIONS

### 5A DESIGN AND CONSTRUCTION OF ARCH BRIDGES

- **Design, Construction and Structural Health Monitoring of a Steel Arch Bridge**
  - Aleksander Nelson, HDR Engineering Inc.
  - Ahmad Abu-Hawash, Iowa Department of Transportation
  - Hussein Khalil, HDR Engineering, Inc.
  - Brent Phares, Iowa State University
  - Terry Wipf, Iowa State University

- **Sellwood Bridge Project: Final Design of the Main Crossing Arch Bridge**
  - Ian Cannon, Multnomah County, Oregon
  - Mike Lopez, TY Lin Corp.
  - Eric Rau, TY Lin Corp.

### 5B BRIDGE PRESERVATION

- **Developing an Effective Bridge Preservation Program**
  - Chris Keegan, Washington State Department of Transportation

- **Vertical Impedance Measurements on Concrete Bridge Decks for Assessing Susceptibility of Reinforcing Steel to Corrosion**
  - W. Spencer Guthrie, BYU
  - Brian A. Mazzeo, BYU
  - Hillary M. Argyle, BYU

- **How Do You Inspect Something You Can’t See? Oregon’s Experience in a Pilot Program to Test PT Ducts**
  - Marie Kennedy, Oregon Department of Transportation

### 5C SPECIAL DESIGN AND CONSTRUCTION

- **Design of the Truckee River Bridge**
  - William Rodriguez, TY Lin

- **South Park Bascule Bridge Replacement: Innovations in Design, Construction & Sustainability over 80 Years**
  - Timothy Lane, King County WA
  - David McCurry, HNTB

- **Design of Keechelus Lake Avalanche Bridges**
  - Cory Caywood, Jacobs Engineering
  - Kevin Dusenberry, Jacobs Engineering

### 5D LIGHT RAIL BRIDGE PROJECTS

- **Design of the East Link Aerial Guideway Structures in Bellevue, WA**
  - Jerry Dorn, HNTB

- **D to M Streets Track and Signal Improvement Project: Pacific Avenue Bridge**
  - Thomas R. Wilson, Parsons Brinckerhoff
  - Erick Kelly, Parsons Brinckerhoff

- **I-90 Track Bridge: The Reality of Taking Light Rail Vehicles on to the Homer M. Hadley Floating Bridge**
  - Thomas R. Cooper, Parsons Brinckerhoff

10:00–10:30 am COFFEE BREAK (Exhibit Hall)

10:30–Noon TECHNICAL SESSIONS

### 6A DESIGN AND CONSTRUCTION OF STEEL BRIDGES

- **Fracture and Fatigue Properties of Seriously Damaged Steel, Bridge Structural Members Repaired through Heat-Straightening**
  - Kiyuan Liu, Parsons Brinckerhoff
  - David Mukai, University of Wyoming
- Challenges of the Design and Construction of Steel Bridge over Ebey Slough in Washington State
  Loung (Lou) H. Tran, Washington Department of Transportation

- Design & Construction of the Shenandoah River Bridge Steel Delta Frame
  Jason Fuller, HDR Engineering Inc.
  Matthew Bunner, HDR Engineering, Inc.

### 6B BRIDGE MANAGEMENT

- Bridge Paving Design, Construction, and Management
  Bruce Thill, Washington Department of Transportation

- Improving Load Ratings & Bridge Management Decisions: Field Testing of the Jackson St. Bridge
  Brice Carpenter, Bridge Diagnostics Inc.
  Greg Kim, Seattle DOT
  Brett Commander, Bridge Diagnostics Inc.

- WSDOT’s Bridge Management and Performance Measures
  DeWayne Wilson, Washington State Department of Transportation

### 6C BRIDGE RESEARCH

- Seismic Design of Concrete Filled Tube Columns and Their Connections
  Charles W. Roeder, University of Washington
  Dawn E. Lehman, University of Washington
  Max T. Stephens, University of Washington
  Jiho Moon, Korea University, Seoul South Korea

- Controlling Cracking at the Ends of Pretensioned Concrete Bridge Bulb Tee Girders
  Pinar Okumus, Worcester Polytechnic Institute
  Michael G. Olivia, University of Wisconsin

- Socket Connections for Rapid Construction of Bridge Bents with Spread Footings
  John Stanton, University of Washington
  Marc Eberhard, University of Washington
  Olafr Haraldsson, University of Washington

### 6D BRIDGE AESTHETICS

- Genesee Avenue Pedestrian Overcrossing: A Concrete Bridge with High Degree of Curvature
  Paul Morel, Kleinfelder/Simon Wong Engineering

- Bridge Architecture: Current Trends: A West Coast Bridge Architect’s Perspective
  Michael Fitzpatrick, T.Y. Lin
  Paul Kim, Washington State Department of Transportation

- Aesthetic Bridge Rails and Barriers in California
  Shannon Post, CalTrans

### 7A SPECIAL BRIDGE DESIGN AND CONSTRUCTION

- Landmark in the Works: Novel Use of Post-Tensioning in Highly Curved Bridges
  Claudia Osses, AECOM, Buckland & Taylor
  Huanzi Wang, AECOM, Buckland & Taylor
  Richard Patterson, AECOM, Buckland & Taylor

- Design of the SR 99 Bored Tunnel and Approach Structures in Seattle, WA
  Jerry Dorn, HNTB Corp

- Accelerated Design/Construction Using Prefabricated Bridge Components
  Merv Ericksson, DJ & A

### 7B BRIDGE PRESERVATION

- Summary of Critical Findings Reviews and Independent Review of Safety Inspection Practices for Bridges with Fracture Critical Members for FHWA
  Brian J. Leshko, HDR Engineering Inc.

- Field Application of Ultrasonic Phased Array for Structural Evaluation
  Curtis Schroeder, Fish & Associates Inc.

- Rope Access Investigation and Emergency Repair of the Diefenbaker Bridge Girder Fracture
  Reed Ellis, Stantec Consulting Services, Inc.
  Nicholas Ciolfredi, Stantec Consulting Services, Inc.
  Frank Block IV, Stantec Consulting Services, Inc.

### 7C BRIDGE DESIGN CASE STUDY

- Design and Construction of Fresno SR 180 Braided Ramp Design Build Project
  Sammy Tu, ARUP
  John Pologar, Walsh Group

- Precast Girder and Integral Bent Cap for the Sunset Blvd and Skirball Center Drive Crossing Bridges
  Patrick W. Pence, HNTB Corp
  Evelyn Y. Liang, HNTB Corp.
  Luan S. Go, HNTB Corp.
  Kookjoon Ahn, CalTrans

- Structural Design Complexity of Presidio Parkway CIP/PS Solid Slab Bridges
  Ali Rejaie, HNTB Corp.
  Kuan Go, HNTB Corp.
  Evelyn Liang, HNTB Corp.

### 7D BRIDGE REHABILITATION

- Seismic Retrofit and Rehabilitation of the Laurel Street Overcrossing
  Peter Smith, T.Y Lin
- **US-2 Moyie River Gorge Bridge Rehabilitation**  
  Dan Gorley, Idaho Department of Transportation  
  Kenneth Clausen, Idaho Department of Transportation

- **Reconstruction of the New Jersey Turnpike Authority’s Eastern Hackensack River Bridge**  
  Richard Schaefer, HNTB Corp.  
  Andrew Kamilaris, Dewberry Engineers  
  Kevin M. Healy, NJ Turnpike Authority

3:00–3:30pm **COFFEE BREAK (Exhibitor Area)**

3:30–5:00 pm **TECHNICAL SESSIONS**

**8A BRIDGE DESIGN POLICIES**

- Evaluation of Common Design Policies for Precast Prestressed I-Girder Bridges  
  Richard Brice, Washington State Department of Transportation  
  Stephen J. Seguirant, Concrete Technology Corp.  
  Bijan Khaleghi, Washington State Department of Transportation

- Stability of Straight Steel Plate Girders During Construction  
  Robert C. Gale, Buckland & Taylor

- Analysis Of Curved And Skewed Steel Girder Bridges During Construction  
  Andres Sanchez, HDR Engineering Inc.  
  Cagri Ozgur, Rizzo Associates  
  Donald White, Georgia Institute of Technology  
  Domenic Coletti, HDR Engineering Inc.

**8B GEOTECHNICAL DESIGN**

- Geotechnical Challenges of the S. Holgate Street to King Street Viaduct Replacement Project, Seattle, WA  
  Monique Anderson, Shannon & Wilson  
  Jim Struthers, Washington State Department of Transportation

- Wishkah Bridge Replacement-Designing for Significant Landslide Movement with Conventional Materials  
  Anne Fabrello-Streufert, KPFF Consulting Engineers  
  Aaron Olson, KPFF Consulting Engineers  
  Jason Pang, KPFF Consulting Engineers

- Shaft Base Grouting-Perching Deep Foundations in Specific Soil Layers  
  Stuart Bennion, Washington State Department of Transportation

**8C BRIDGE DESIGN CASE STUDY**

- The Two Medicine River Bridge: Montana’s First Post-tensioned Concrete Box-Girder Bridge, Glacier, MT  
  Tony Kojundic, Elkem Materials, Inc.

**8D PREFABRICATED BRIDGE ELEMENTS AND SYSTEMS**

- ABC and PBES in Idaho  
  Dan Gorley, Idaho Department of Transportation  
  Kenneth Clausen, Idaho Department of Transportation

- Construction Difficulties in Rural Arizona  
  Amjad Alzubi, Arizona Department of Transportation, Bridge Group

- Recommended AASHTO LRFD Design Specifications and Method of Structural Analysis for Bridge Structures with Resilient Energy Dissipation Mechanism in Their Columns  
  M. “Saiid” Saiidi, Professor of Civil & Environmental Engineering, University of Nevada, Reno  
  Brian Nakasoji, University of Nevada  
  Jedediah Bingle, Washington State Department of Transportation

5:00–9:00 pm **EXHIBITOR MOVE-OUT**

**Friday, September 6**

8:30–10:00 am **TECHNICAL SESSIONS**

**9A CABLE SUPPORTED BRIDGES**

- Tower Erection Engineering for the San Francisco-Oakland Bay Bridge Self-anchored Suspension Span  
  B. Hammersley, Klohn Crippen Berger Ltd.  
  W. Wu, Wu and Dowedell Associated  
  B. Hammersley, Wu and Dowedell Associated  
  D. Dowedell, Wu and Dowedell Associated  
  N. Greco, American Bridge Company

- Fabrication of the Deh Cho Bridge Pylons  
  Paul King, Rapid-Span Structures, Ltd.

- Innovative Methods for Inspection of Cable-Stayed Highway Bridges, Old and New  
  Scott Wyatt, KPFF Consulting Engineers  
  Chris Ligozio, KPFF Consulting Engineers

**9B LIGHT RAIL BRIDGE PROJECTS**

- PHX Sky Train: Taking Trains Under Planes  
  David Burrows, Gannett Fleming, Inc.
- Gusset Plate Triage Analysis for Steel Trusses in Washington
  Patrick Gallagher, Washington State Department of Transportation

- Bridge Instrumentation: Needs, Options, and Consequences
  Ertugrul Taciroglu, UCLA
  S. Farid Ghaemi, Sharif University of Technology, Tehran, Iran
  Fariba Abazarsa, International Institute of Earthquake Engineering & Seismology, Tehran, Iran
  Anoosh Shamsabadi, CalTrans
  Pat Hipley, CalTrans

**9C BRIDGE DESIGN CASE STUDY**

- Washington Street Overcrossing-Accelerated Bridge Construction Methods: Concept to Completion
  Andy Howe, OBEC Consulting Engineers
  Jason Kelly, OBEC Consulting Engineers

- Glenwood Connector Pedestrian Bicycle Bridge: Minimizing Environmental Impacts Through Sustainable Materials and Minimal Project Footprint
  Evan Sinn, T.Y. Lin
  Scott Nettleton, T.Y. Lin

- Ship & Barge Collisions with Highway Bridges
  Michael Knott, Moffat & Nichol
  Eric Nichol, Moffat & Nichol
  Mikele Winters, Moffat & Nichol

**9D BRIDGE INSTRUMENTATION**

- Force Monitoring of Post-Tensioning Tendons and Cable Stays in Bridge Structures
  Shahid Islam, DYWIDAG-Systems International

- Instrumentation and Structural Health Monitoring of the Galena Creek Bridge
  Troy Martin, Nevada Department of Transportation

- Images at Depth: The Use of Acoustic Imaging on Large River Crossings: A Case Study
  Jeffrey B. Rowe, Infrastructure Engineers Inc.
  Kenneth LaBry, CH Fenstermaker & Associates, LLC

10:00 – 10:30 am  **COFFEE BREAK (Exhibit Hall)**

10:30 – 11:30 am  **GENERAL SESSION**

- Keynote: Whence and Whither Seismic Design? Past and Future Perspectives on Bridge Seismic Design
  Lee Marsh, BergerABAM

- Keynote: Bridging the Gap Africa
  Kelly Rehm, AASHTO

11:45 am  **INVITATION TO 2015 CONFERENCE**

- Closing Remarks
- Adjourn