

ASBI's

AMERICAN SEGMENTAL BRIDGE INSTITUTE

FIRST 20 YEARS AND THE FUTURE

By Linda Figg, FIGG and Ray McCabe, HNTB

In 2008, the American Segmental Bridge Institute (ASBI) will celebrate its 20th anniversary by hosting an international symposium on "Future Technology for Concrete Segmental Bridges" in San Francisco, California, on November 17-19, 2008. The expanded 3-day program will culminate the 20th anniversary celebration of ASBI and will feature keynote presentations by widely recognized United States and international bridge engineers, along with a tour to view the construction of the San Francisco-Oakland Bay Bridge. ASBI has come a long way over the years, growing to 51 organizational member companies and a total of 264 engineers, contractors, and suppliers—all focused on the segmental bridge industry. The 2007 convention, held in Las Vegas, Nevada, attracted 415 bridge industry professionals, the largest ASBI convention to date. ASBI has achieved many goals and is well poised to support the segmental bridge industry in the future.



ASBI's founding members

— A moment in history

Standing (from left to right): W. Burr Bennett Jr., consultant; Robert P. McCrossen, material supplier; Clifford L. Freyermuth; Eugene C. Figg Jr., consultant; Raymond Schmahl, contractor; Juergen L. Plaehn, material supplier; Seated (from left to right): David T. Swanson, material supplier; W. Jack Wilkes, consultant; and Gary L. Peters, contractor.

ASBI was founded in 1988 through the vision and leadership of Eugene C. Figg Jr. In remembering those early days, Linda Figg reflects, "My father brought me into his office one day to share his ideas for what would become the American Segmental Bridge Institute. He believed that a focused organization with people from various industry interests would bring the greatest success to advancing segmental bridge technology. He thought Cliff Freyermuth would be excellent to manage the organization with his strong background with the Precast/Prestressed Concrete Institute and Post-Tensioning Institute. And now, 20 years later, ASBI has made significant achievements and Cliff Freyermuth has been a strong and dedicated day-to-day leader."

Background photo courtesy of Kiewit Pacific Company.



Cliff Freyermuth
Manager, ASBI

The original group gathered in Wichita, Kansas, to discuss how the segmental bridge industry could come together in one organization to provide a resource to advance the benefits of concrete segmental bridges in the United States. Each of the individuals in the founding group saw the benefits of segmental bridges and the increasing level of interest in segmental bridges nationwide. The vision was to create a unique organization that would bring together all areas of interest—owners, engineers, designers, contractors, and material suppliers. ASBI's founding members were a cross-section of interested leaders, who set the framework for how the organization and industry could grow and succeed.

In ASBI's 20-year history, the industry has evolved and advanced in many positive ways. Many successful and beautiful segmental bridges have been completed and more are being designed and built by ASBI member firms. Segmental bridges are increasingly becoming a preferred bridge technology by many owners. Segmental bridges have been completed throughout the United States and continue to set new records for span lengths, to introduce new technologies, to be cost efficient, and to capture pleasing aesthetic qualities.

Grouting Certification

In order to continue to strengthen the industry and provide quality measures consistent with our goals, ASBI organized and began offering grouting certification training in 2001. The purpose of the training is to provide supervisors and inspectors of grouting operations with the training necessary to understand and successfully implement grouting specifications for post-tensioned structures. Over 1100 professionals have completed this training, which is offered annually, bringing improved construction to segmental bridges. In 2008, the grouting training and certification will be offered on April 14 and 15 at the J.J. Pickle Research Campus in Austin, Texas.

Cliff Freyermuth

ASBI has achieved many goals set out 20 years ago. Since the organization was founded, the day-to-day operations of ASBI have been managed by Cliff Freyermuth. In this anniversary year, it is with pleasure that we pay tribute to him for his dedicated service to ASBI. While Cliff is concluding his tenure at ASBI this year, he will continue to be an important voice in the industry and work in consulting. He came to ASBI after 12 years as Manager of the Post-Tensioning Institute, 5 years as Director of the Post-Tensioning Division of the Prestressed Concrete Institute, 6 years



ASBI Training Session Exam on Grouting Certification at the University of Texas.

Photo: T.Y. Lin International.



BRIDGE TOURS AND CONVENTION HOST CITIES

Over the years, ASBI has held annual conventions in 19 distinctive destinations.

Bridge tours of nearby significant segmental bridges have been included. The bridges are typically under construction or recently completed, and serve as a 'classroom in the field' illustrating various aspects of segmental bridge design and construction.

2007 Hoover Dam Bypass Bridge
Las Vegas, Nevada

2006 Otay River Bridge
La Jolla, California

2005 Woodrow Wilson Bridge
Washington, D.C.

2004 Lee Roy Selmon Expressway
Tampa, Florida

2003 High Five Interchange
Dallas, Texas

**2002 San Francisco-Oakland Bay Bridge
& Benicia-Martinez Bridge**
San Francisco, California

**2001 Creve Coeur Lake
Memorial Park Bridge**
St. Louis, Missouri

2000 AirTrain JFK Light Rail
Brooklyn, New York

1999 Sidney Lanier Bridge
Amelia Island, Florida

1998 Central Artery
Boston, Massachusetts

1997 U.S. 183 Viaduct
Austin, Texas

1996 Seabreeze Bridge
Orlando, Florida

1995 Puyallup River Bridge
Seattle, Washington

**1994 Chesapeake & Delaware
Canal Bridge**
Philadelphia, Pennsylvania

1993 Acosta & Dame Point
Ponte Vedra, Florida

1992 Natchez Trace Arches
Nashville, Tennessee

1991 San Antonio "Y"
San Antonio, Texas

**1990 Keys Bridges &
Dodge Island Bridge**
Miami, Florida

1989 Pine Valley Creek Bridge
San Diego, California



2006 ASBI Leadership Awards: Cliff Freyermuth for Outstanding Career Contributions to the Segmental Concrete Industry as ASBI Executive Vice President. Also recognized are (bottom left to right) Guido Schwager, segmental/cable-stayed bridges; John Armeni, Chair, ASBI Committees on Membership and Construction Practices; Hala Elgaaly, Chair, ASBI Bridge Award of Excellence, Board of Directors; Paul Liles, ASBI President 2005-2006; (top left to right) Steven Stroh, concrete segmental/extradosed bridges; W. Denney Pate, concrete segmental/cable-stayed bridges; Alan Moreton, design/construction segmental concrete bridges.

with the Portland Cement Association, and 6 years in bridge engineering with the Arizona Highway Department in Phoenix, Arizona.

Cliff has been responsible for or had significant involvement in over 34 major publications in the industry. He led the development of the *Precast Segmental Box Girder Bridge Manual* published by PCI and PTI in 1978. He was Principal Investigator for the NCHRP Project for development of the 1989 *AASHTO Guide Specifications for Design and Construction of Segmental Concrete Bridges*, and served as the Chairman of the committee that developed three editions of the PTI *Recommendations for Stay-Cable Design, Testing and Installation*. His commitment and knowledge of the industry have been significant contributing factors in ASBI's success. Cliff's career accomplishments have been recognized by many organizations, including ASBI itself in 2006 with an ASBI Leadership Award for Outstanding Career Contributions to the Segmental Concrete Bridge Industry; PCI's Charles C. Zollman Award in 1999; American Concrete Institute's (ACI) Henry C. Turner Medal in 1991; and ACI's Arthur R. Anderson Award

in 2004 for "his many contributions to the development and implementation of post-tensioned concrete building and segmental bridge design techniques and construction specifications." As the current ASBI President Ray McCabe reflects on Cliff's years of service, "We appreciate all the contributions and leadership that Cliff has provided over the past 20 years to ASBI. ASBI continues to grow and Cliff has been instrumental in the development of this forward thinking bridge institute."



Cliff Freyermuth receiving 1999 PCI Charles C. Zollman Award from John Dick, PCI Structures Director.



In 2003, in order to recognize and celebrate segmental bridge owners who have achieved outstanding projects, ASBI created the Bridge Award of Excellence program. Every 2 years, award-winning bridges are honored during the ASBI convention and are featured in *Concrete Products* magazine.

2003 WINNERS

I-25/I-40 Interchange, Albuquerque
New Mexico Department of Transportation

Vietnam Veterans Memorial Bridge, near Richmond
Virginia Department of Transportation

I-90/I-93 Interchange, Boston
Massachusetts Turnpike Authority

Broadway Bridge, Daytona Beach
Florida Department of Transportation

Foothills Parkway Bridges (#9 & #10), Blount County, Tennessee
Eastern Federal Lands, Highway Division, FHWA

Smart Road Bridge, near Blacksburg
Virginia Department of Transportation



ASBI's Future Vision

The Board of Directors has identified strategic steps to continue to look to the future for continued growth and advancement of segmental bridges. Concrete segmental bridges will continue to advance and lead the industry in new technologies for longer lasting bridges. The International Symposium to be held November 17-19, 2008, will feature some 64 topics and speakers highlighting extraordinary achievements in the bridge industry.

The American Segmental Bridge Institute will continue providing a forum where owners, designers, constructors, and suppliers can meet to further refine

current design, construction, and construction management procedures, and evolve new techniques that will advance the quality and use of concrete segmental bridges. ASBI is a unique organization in that all components of the bridge construction industry are included as members.

This fall, ASBI will bring on a new manager to begin the next 20 years and work with future ASBI presidents. A committee, led by Ralph Salamie of Kiewit, is developing details on the manager's position and identifying interested candidates. For more information, contact Ralph at (360) 693-1478 or ralph.salamie@kiewit.com.



LEADERSHIP

ASBI has been led by some of the strongest supporters of the segmental bridge industry in the United States, each focusing on unique issues and opportunities and bringing their own signature to the organization while under their leadership. Leaders included representatives from owners, consulting firms, contractors and material suppliers, each contributing to ASBI and advancing the industry in their own way.

Term of Office	President
1989 – 1990	W. Jack Wilkes, Consultant
1991 – 1992	Gary L. Peters, Contractor
1993 – 1994	David Swanson, Material Supplier
1995 – 1996	Man-Chung Tang, Consultant
1997 – 1998	Eugene C. Figg Jr., Consultant
1999 – 2000	James E. Roberts, Transportation Official (owner)
2001 – 2002	Ronald J. Bonomo, Material Supplier
2003 – 2004	R. Craig Finley Jr., Consultant
2005 – 2006	Paul V. Liles Jr., Transportation Official (owner)
2007 – 2008	Raymond McCabe, Consultant

2005 WINNERS

Victory Bridge, Sussex County
New Jersey Department of Transportation

Four Bears Bridge, New Town
North Dakota Department of Transportation

AirTrain JFK, Brooklyn, New York
Port Authority of New York & New Jersey

Creve Coeur Lake Memorial Bridge
Missouri Department of Transportation

Sidney Lanier Bridge, Brunswick
Georgia Department of Transportation

I-95/Palm Beach Interchange
Florida Department of Transportation

Tarrango Bridge, Mexico City
Government of Mexico City

Panama Canal Second Crossing, Paraiso
Ministry of Public Works, Panama

2007 WINNERS

Lee Roy Selmon Crosstown Expressway Expansion, Tampa
Tampa Hillsborough Expressway Authority, Florida

Otay River Bridge, San Diego County
California Transportation Ventures

Penobscot Narrows Bridge & Observatory, near Bucksport
Maine Department of Transportation

I-76 Susquehanna River Bridge, York and Dauphine Counties
Pennsylvania Turnpike Commission

Second Vivekananda Bridge Tollway, India
Second Vivekananda Bridge Tollway Company Private Ltd.

Woodrow Wilson Memorial Bridge
FHWA, Departments of Transportation of Virginia, Maryland, and District of Columbia

