

- **Recommending Coatings for Concrete**
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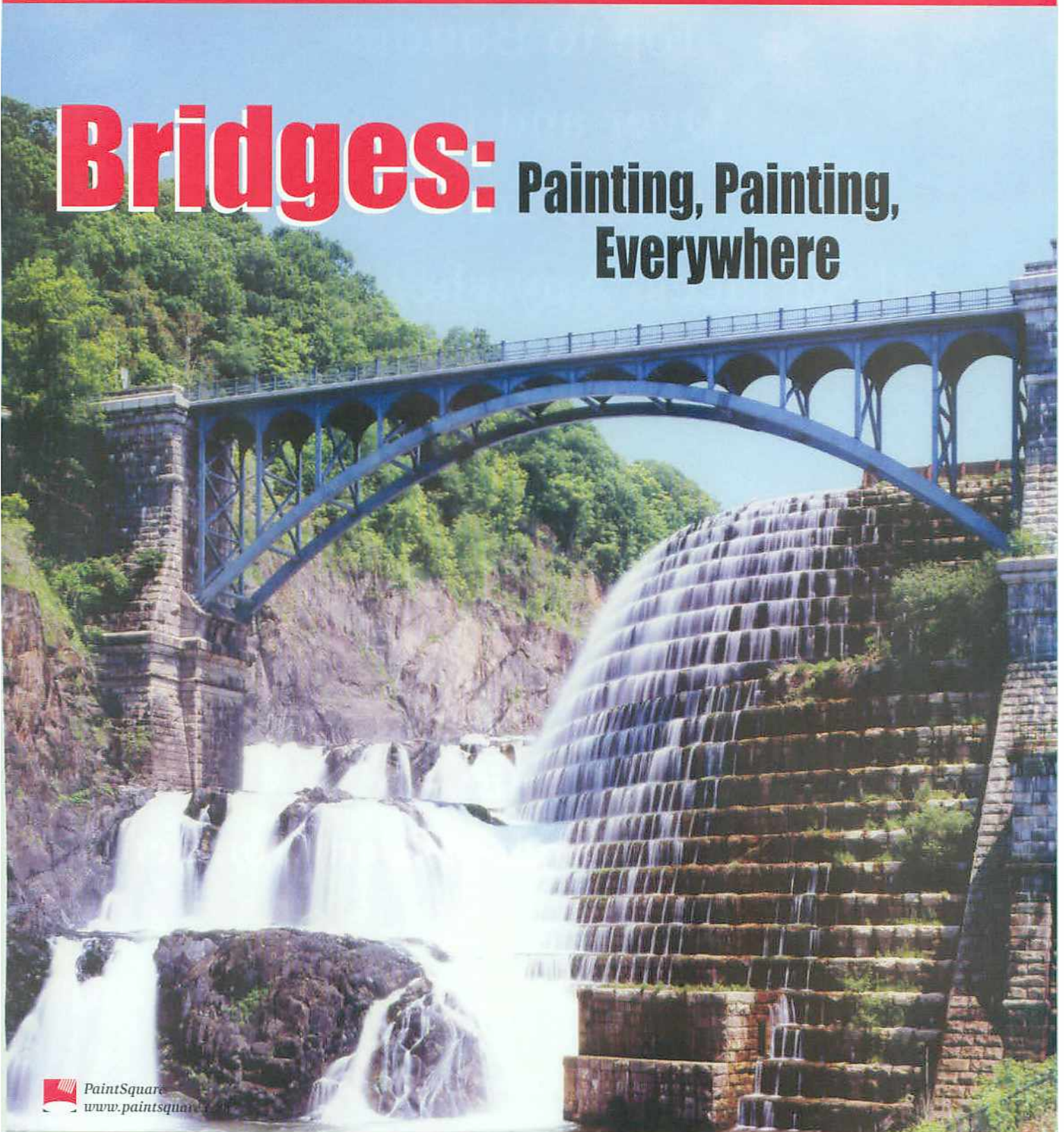
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Bridges: Painting, Painting, Everywhere



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82 NSBA Bridge Awards Span the Country

This photo essay shows the winners of the 2005 Prize Bridge Awards given by the National Steel Bridge Alliance to honor significant steel bridge construction completed in the last year within the U.S. Project details accompany the photos.



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NSBA Bridge Awards Span the Country

The National Steel Bridge Alliance (NSBA; Chicago, IL) has announced the winners of its 2005 Prize Bridge Awards, which honor significant and innovative steel bridges constructed within the U.S. Awards are given in a variety of categories that depend on the size and purpose of the bridge. Winners are selected based on innovation, aesthetics, and design and engineering solutions.

Designers of the prize-winning bridges were presented with their awards during the biannual 2005

World Steel Bridge Symposium, held November 29–December 2 in Orlando, FL. Owners of the prize-winning bridges will be presented their awards in 2006 at the AASHTO Bridge Subcommittee Meeting.

Awards are described in these pages. When available at press time, firms responsible for painting work on the bridges are identified, along with other firms involved in the design and construction of the winning bridges.

New Croton Dam Spillway Bridge



(right) Medium Span: The New Croton Dam Spillway Bridge in Cortlandt, NY, is a 200-foot steel deck arch bridge that crosses a spillway torrent. According to Jeff Wallace of High Steel Structures, Inc., the unusual project involved coating, galvanizing, and metalizing.

- Owner: New York City, NY
- General Contractor and Steel Erector: Kiewit Constructors, Inc., Park Ridge, NJ
- Designer: Hardesty & Hanover, LLP, New York, NY
- Steel Detailer: Tensor Engineering, Indian Harbour Beach, FL
- Steel Fabricator and Painting Contractor: High Steel Structures, Inc., Lancaster, PA
- Galvanizing Contractor: Voight & Sweitzer, Redford, MI
- Metalizing Contractor: Rigal Industries, Denora, PA

All photos courtesy of the National Steel Bridge Alliance

(left) Special Award: The Cooper River Bridge in Charleston, SC, North America's longest cable-stayed bridge, replaces two outdated truss bridges. It is designed to meet extreme wind and earthquake conditions. A design-build project, it opened a year ahead of schedule, on July 16, 2005.

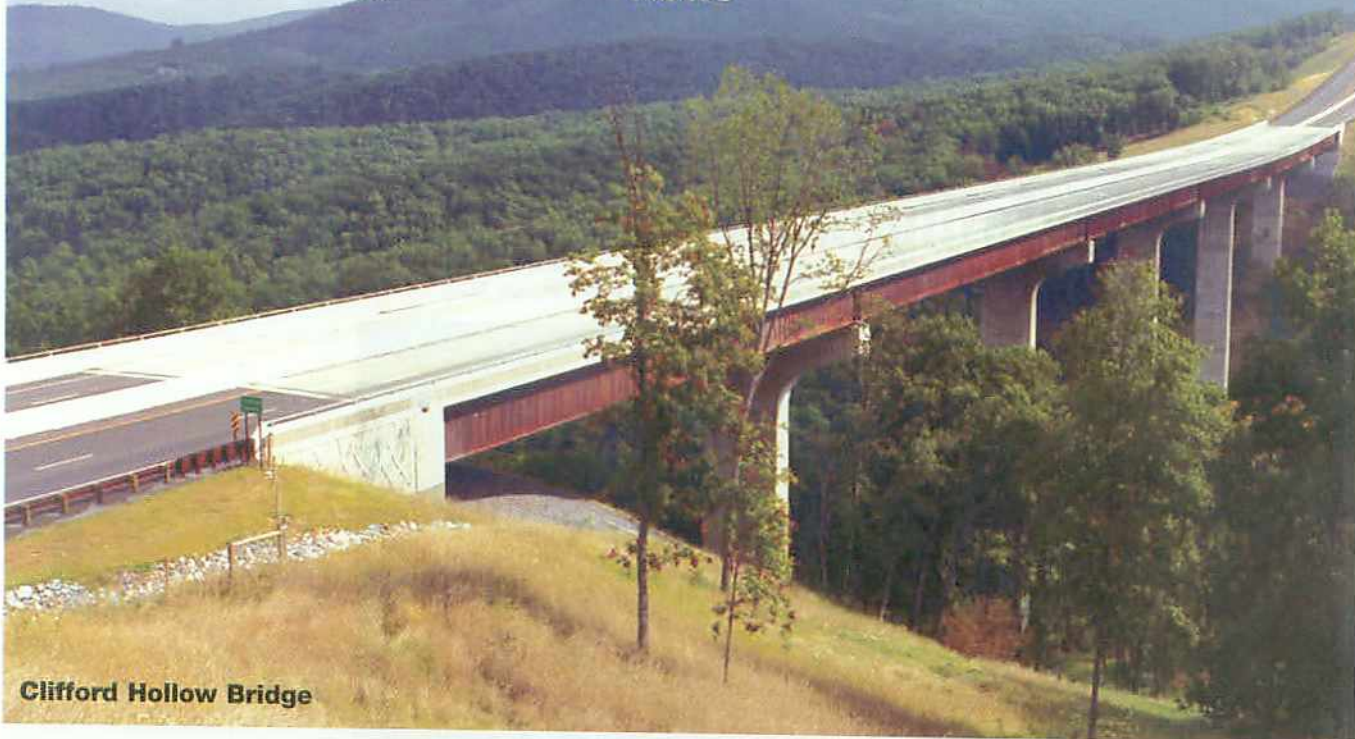
- Owner: South Carolina Department of Transportation
- Designers: Parsons Brinckerhoff Quade & Douglas, Inc., New York, NY, and Buckland & Taylor, N. Vancouver, BC, Canada
- General Contractor and Steel Erector: Palmetto Bridge Constructors, Charleston, SC
- Steel Detailers: Tensor Engineering, Indian Harbour Beach, FL, and Carolina Steel Corporation, Greensborough, NC
- Steel Fabricators: High Steel Structures, Lancaster, PA, and Carolina Steel Corporation, Greensborough, NC
- Steel Erector: Palmetto Bridge Constructors, Charleston, SC
- Architect and Consultant: Macdonald Architects, San Francisco, CA
- Painting Contractor: John B. Conomos, Bridgeville, PA
- Paint Manufacturer: Carboline Co., St. Louis, MO

(below) Reconstructed: The Red Cliff Arch Bridge, built in 1941, spans the Eagle River in Red Cliff, CO. The reconstruction work included widening and upgrading the bridge deck to current safety standards while maintaining the bridge's original character and appearance. Complete lead paint abatement and repainting of the bridge is detailed in the September 2005 JPCL, p. 9.

- Owner and Designer: Colorado Department of Transportation
- General Contractor and Steel Erector: Lawrence Construction Company, Littleton, CO
- Steel Fabricator and Detailer: American Fabricators, Denver, CO
- Steel Repair: Flame On, Snohomish, WA
- Steel Galvanizing: North American Galvanizing Company
- Surface Preparation and Painting Contractor: Techno Coatings, Anaheim, CA
- Coating Manufacturer: Carboline Co., St. Louis, MO



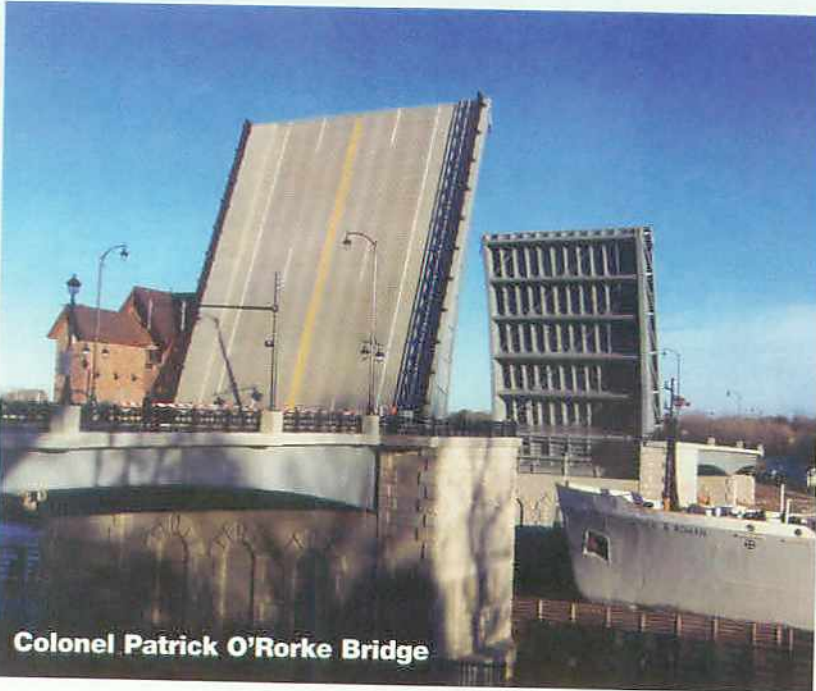
Red Cliff Arch Bridge



Clifford Hollow Bridge

(above) Long Span: The Clifford Hollow Bridge in Hardy County, WV, uses a girder-substringer system with a span arrangement of end spans (of 210 ft) and four interior spans (of 276 ft), for a total length of 11,522 ft.

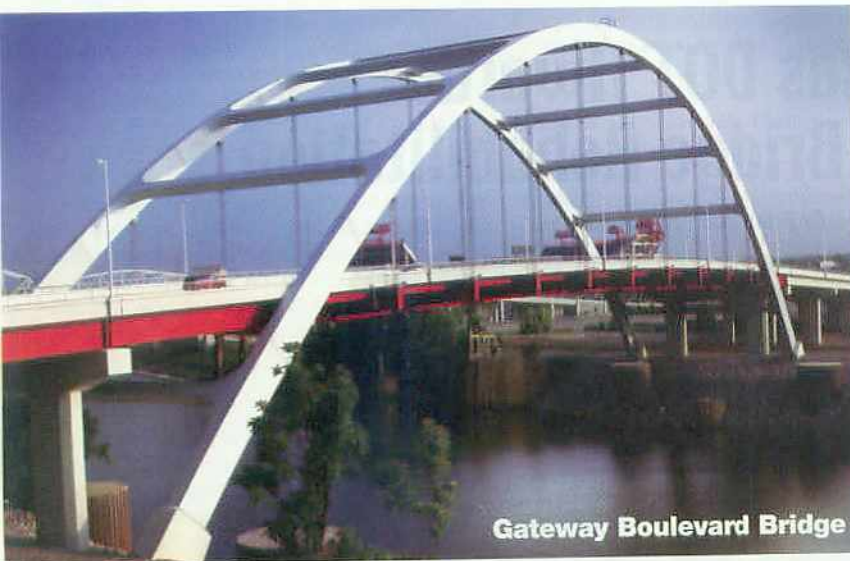
- Owner: West Virginia Department of Transportation
- General Contractor: Dick Corporation, Pittsburgh, PA
- Designer: HDR Engineering, Pittsburgh, PA
- Steel Fabricator/Detailer: Stupp Bridge, St. Louis, MO
- Steel Erection/Launching Design: Finley-McNary Engineers, Inc., Tallahassee, FL
- Steel Erector: Structural Services, Bethlehem, PA



Colonel Patrick O'Rourke Bridge

Movable Span: The Colonel Patrick O'Rourke Bridge project in the Port of Rochester, NY, consists of a rolling-lift bascule main span flanked by a 148-foot long single-span steel girder approach structure on the west side and a 530-foot long, three-span curved and splayed steel approach girder on the east side.

- Owner: New York State Department of Transportation
- General Contractor: Crane-Hogan Structural Systems, Inc., Spencerport, NY
- Designers—Prime Consultant: Bergman Associates, Rochester, NY, and Sub-Consultant: URS Corporation, Rolling Meadows, IL
- Steel Detailer: Tensor Engineering, Indian Harbour Beach, FL
- Steel Fabricator: PDM Bridge, Eau Claire, WI
- Steel Erector: Contractors Welding of Western NY



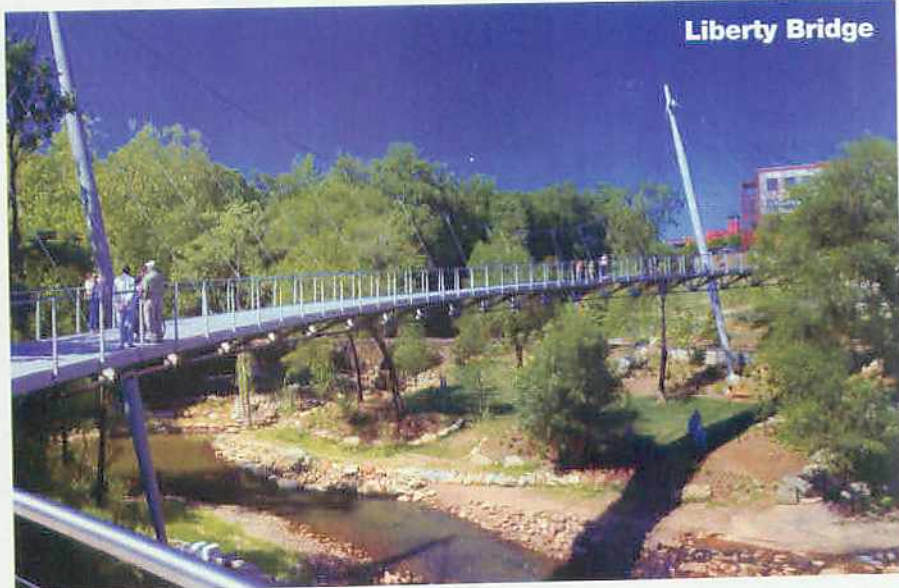
Gateway Boulevard Bridge

Major Span: The Gateway Boulevard Bridge over the Cumberland River in Nashville, TN, is a 660-foot bridge with a 545-foot-long steel through-arch section. According to NSBA, the arch ribs are steel box girders with a lateral bracing system of steel box Vierendeel struts.

- Owner: Tennessee Department of Transportation
- General Contractor: Ray Bell Construction Company, Brentwood, TN
- Designer and Architect: HNTB Corporation, Kansas City, MO
- Steel Detailer: Tensor Engineering, Indian Harbour Beach, FL
- Steel Fabricator: PDM Bridge, Eau Claire, WI
- Steel Erector: American Bridge Company, Coraopolis, PA
- Painting Contractor: Planet, Inc., Rockwood, TN

(right) Special Purpose: The Liberty Bridge is part of a larger project intended to transform the Reedy River Falls Historic Park in downtown Greenville, SC, into a spectacular public attraction and garden. The suspension bridge is 340 ft long, with a 200-foot clear span across the Reedy River, two 100-foot-tall inclined towers, and cables suspended on one side to support the bridge.

- Owner: City of Greenville, SC
- Bridge Architects: Rosales Gottemoeller & Assoc., Inc., Boston, MA
- Structural Engineer: Schlaich Bergermann and Partner LP, New York, NY
- Site Design and Landscape Architects: Arbor Engineering, Greenville, SC
- Construction Administration: Atkins-Hanscomb Faithful & Gould, Greenville, SC
- General Contractor: Taylor & Murphy, Asheville, NC
- Steel Fabricators: Pfeifer, Memmingen, Germany, and Dave Steel Company, Asheville, SC



Liberty Bridge

Germantown Avenue Bridge

(left) Short Span: The Germantown Avenue Bridge over Wissahickon Creek in Philadelphia, PA, replaced a nine-span straight bridge with a 50% longer three-span, curved steel girder bridge.

- Owner: City of Philadelphia
- General Contractor: Neshaminy Constructors, Inc., Feasterville, PA
- Designer/Engineering Consultant: URS Corporation, Port Washington, PA
- Steel Detailer/Fabricator/Erector: High Steel Structures, Inc., Lancaster, PA

