

Excellence in Highway Design 2010

Judges

FHWA would like to express its appreciation and gratitude to the following individuals for their contribution in judging the Excellence in Highway Design Awards.

Mr. Kenneth T. Briggs, PE
Practice Leader Highways
KCI Technologies
Sparks, Maryland

Mr. Dan Dennis, PE, PLS
President
Dennis Corporation
Columbia, South Carolina

Mr. Brian G. Thompson, PE
Director, Bureau of Project Delivery
Pennsylvania Department of
Transportation
Harrisburg, Pennsylvania

Mr. Jeffery R. Kullman, PE
AVP, District Director
PBS&J
Denver, Colorado

Mr. Kim L. McLaury, PE, PLS
President
McLaury Engineering
Elk Point, South Dakota

Mr. Tom Myers, PE
Project Manager
Wilcox Professional Services
Lansing, Michigan

Mr. Steven Hoff, PE
Vice President
HDR Engineering, Inc.
Souix Falls, South Dakota

Mr. Leo Scott, PE
Vice President
Gray-Bowen and Company
Walnut Creek, California

Mr. Daniel Baah, PE
Principal Project Manager
CH2M Hill
Dayton, Ohio

Mr. Richard Coakley, PE, PTOE
Principal Technologist
CH2M Hill
Milwaukee, Wisconsin

Mr. Jim DeLuca, PE
Project Development Coordinator
California Department of
Transportation
Sacramento, California

From streets that are the heartbeat of a community to dramatic modern bridges, the Federal Highway Administration's (FHWA) Excellence in Highway Design Biennial Awards Program recognizes outstanding highway transportation, highlighting the best in highway design. One of the critical challenges facing our industry is providing context sensitive highway solutions that enhance safety, improve mobility, protect the environment, make effective use of limited resources, and deliver projects in a timely manner. These award winners showcase how innovative practices and methods have been integrated into the development and delivery of these projects

to meet this challenge with resounding success.

The 2010 awards for Excellence and Honorable Mention in 10 categories were announced at the American Association of State Highway and Transportation Officials' annual meeting in Biloxi, Mississippi, held October 28-November 1. The individual awards will be presented to the winners at later dates by their local FHWA Division offices.

For more information on the awards program, contact Brooke Struve (phone: 202-366-1317 or email: brooke.struve@dot.gov) or visit www.fhwa.dot.gov/eihd.

Excellence Award Winners

Urban Highways: Freeways and Expressways

*Marquette Interchange Reconstruction
Milwaukee, Wisconsin*

The Marquette Interchange carries more than 300,000 vehicles daily through downtown Milwaukee—nearly half the state's commerce and tourism traffic. The reconstruction of this critical corridor has delivered a new, state-of-the-art, five-level interchange, which now stands as one of Milwaukee's most iconic structures and a re-birth of the original interchange designed in 1968.

*Designer: Milwaukee Transportation Partners
Contractor: Marquette Constructors
Owner: Wisconsin Department of Transportation*



Marquette Interchange Reconstruction

Urban Highways: Surface Streets

*State Route 376
Hooker Avenue to WB Route 44/55
Poughkeepsie, New York*

By modifying the intersections into modern roundabouts and reducing the number of lanes, the Hooker Avenue project significantly reduced delays, reduced speed, and increased safety. Using larger sidewalks, parking areas, and street imprint made for livable streets that now create a pedestrian friendly community.

*Designer: New York Department of Transportation
Contractor: Green Island Contracting, LLC
Owner: New York Department of Transportation*



Roundabout on State Route 376



Excellence Award Winners

Rural Highways: Freeways

*U.S. Route 395, Blackrock Four-Lane
Inyo County, California*

The Blackrock Four-Lane Project converted 14.3 miles of two-lane highway to four-lane expressway with a 100-foot median, using the latest engineering tools and taking extraordinary care to preserve unique environmental features. Retaining native landscaping wherever possible eliminated the need for irrigation systems and reduced the long term maintenance while preserving the natural scenic quality of the corridor.

*Designer: California Department of Transportation
Contractor: SKANSKA USA Civil West
Owner: California Department of Transportation*



Undisturbed median on U.S. Route 395

Rural Highways: Highways

*State Trunk Highway 1
Reconstruction Between Ely and Isabella
Lake County, Minnesota*

Trunk Highway 1, winding through the stunning Superior National Forest, follows the existing segments of the historically significant alignment to the extent feasible while straightening curves where necessary. Basing the design on a balanced evaluation of safety, performance, and context resulted in a highway that serves the competing needs of commercial, residential and recreational travel.

*Designer: Minnesota Department of Transportation
Contractor: Ulland Brothers, Inc.
Owner: Minnesota Department of Transportation*



State Trunk Highway 1

Structures (greater than \$10 million)

*New I-35W Bridge
Minneapolis, Minnesota*

On August 1, 2007, the tragic collapse of the I-35W Bridge was front-page news across the country and the world. Despite the challenges and aggressive schedule, the new segmental concrete "smart bridge" features a progressive design of new technology and achieves a vision for quality, safety and innovation.

*Designer: FIGG Engineering Group
Contractor: Flatiron Construction Corp. and
Manson Construction Company
Owner: Minnesota Department of Transportation*



New I-35W Bridge

Honorable Mention

Traveler Services

*State Trunk Highway 61,
Split Rock Lighthouse Overlook Rehabilitation
Beaver Bay Township, Minnesota*

The purpose of this project was to restore and preserve an important historic wayside rest along Minnesota Trunk Highway 61, Lake Superior's North Shore Scenic Drive All-American Road, for the safety, comfort, and enjoyment of future generations.

*Contractor: Environment Associates, Inc.
Owner: Minnesota Department of Transportation*



Rehabilitated overlook terrace with a view of Lake Superior

Project Management

*State Trunk Highway A and Lake Delton Restoration
Village of Lake Delton, Wisconsin*

Unprecedented rainfall caused Lake Delton to rise and erode a breach through a low-lying section of the lakeshore and a segment of State Trunk Highway A, interrupting the service of this critical transportation and utility corridor. The restoration project was "a masterpiece of collaboration" that demonstrates how public and private partnerships can deliver amazing results.

*Designer: Mead and Hunt, Inc.
Contractor: Hoffman Construction and
Staab Construction
Owner: Wisconsin Department of Transportation*



Devastation of washed out Trunk Highway A and empty lake

Program and Project Development

*TransNet Project Office
San Diego, California*

The sheer magnitude of the Transnet projects exceeded the grasp of the current organizational and business structure to achieve the ambitious project delivery. A program assessment was conducted which concluded that an organizational structure, headed by a single corridor manager, would enable the program to achieve its aggressive goals.

Owner: San Diego Association of Governments



TransNet Project Office

Honorable Mention

Rural Highways: Highways

*State Route 200, Saddle Road
Hawaii County, Hawaii*

Saddle Road is the shortest and most direct cross-island route between east and west Hawaii and an important cross-island link between Hilo and the residential and resort areas along the Kona and Kohala coast. This 7-mile project removes conflicts between military training and the traveling public and provides a safe cross-island highway for the community.

*Designer: Okahara and Associates, Inc.
Contractor: Goodfellow Brothers, Inc.
Owner: Department of the Army, FHWA Central Federal Lands Highway Division, and
Hawaii Department of Transportation*



State Route 200, Saddle Road

Structures (greater than \$10 million)

*State Route 113, Gay Street Bridge
Phoenixville, Pennsylvania*

The Gay Street Bridge Project replaced the massive twelve-span concrete arch bridge with a 973' steel structure that provides increased load capacity and maintains safe pedestrian, vehicular, and emergency traffic to downtown, while continuing its role as a prominent fixture and contributing element of the Phoenixville Historic District.

*Designer: Johnson, Mirmiran and Thompson, Inc.
Contractor: Nyleve Bridge Corporation
Owner: Pennsylvania Department of Transportation*



State Route 113, Gay Street Bridge

Structures (less than \$10 million)

*State Route 9, Bridge Over Crum Elbow Creek
Hyde Park, New York*

This project entailed the rehabilitation of historically and architecturally significant Bridge over Crum Elbow Creek, originally constructed in 1898 by the Vanderbilt family and considered an excellent example of the turn-of-the-century stone masonry arch bridge construction.

*Designer: New York State Department of Transportation
Contractor: Sun Up Enterprises, Inc.
Owner: New York State Department of Transportation*



Installation of supports under masonry arch

Excellence Award Winners

Structures (less than \$10 million)

*Interstate 80, 4 Bridges in 37 Hours
Mountain Dell to Lambs Canyon
Salt Lake County, Utah*

Since maintenance of traffic was driving project costs, the design-build team proposed replacement of the superstructure of all four I-80 bridges using self-propelled modular transporters. Innovative positioning of the temporary abutments at the lifting points eliminated additional stresses during the moving operation, greatly increasing the life of the bridges.

*Designer: Stanley Consultants, Inc.
Contractor: Wadsworth Brothers Construction
Owner: Utah Department of Transportation*



New bridge deck on Interstate 80

Intermodal Transportation Facilities

*State Route 36, Town Hill
Susanville, California*

The Town Hill project adds a bike lane on State Route 36 to provide new multimodal commuting and recreational opportunities while enhancing the corridor with safety and intersection improvements.

*Designer: California Department of Transportation
Contractor: Steve Manning Construction, Inc.
Owner: California Department of Transportation*



State Route 36, Town Hill

Traveler Services

*Interstate 5, Bass Mountain Wireless Hub
Redding, California*

The Bass Mountain Wireless Hub serves an important section of I-5 as it enters the Cascade mountain range. This project provides the communications infrastructure to allow drivers to access better and timelier highway condition information. For motorists, it often means the difference between spending the night in a comfortable motel room or along the roadside in freezing weather.

*Designer: California Department of Transportation
Contractor: California Department of Transportation
Owner: California Department of Transportation*



Bass Mountain Wireless Hub

Excellence Award Winners

Project Management

*U.S. Route 9W, James A. Farley Memorial Bridge Replacement
Stony Point, New York*

The James A. Farley Bridge was successfully replaced in one construction season by the interdisciplinary project team using regular and heightened coordination with stakeholders and the public, early identification of risks, and implementation of a risk management plan.

*Designer: New York State Department of Transportation
Contractor: Harrison and Burrowes Bridge Constructors, Inc.
Owner: New York State Department of Transportation*



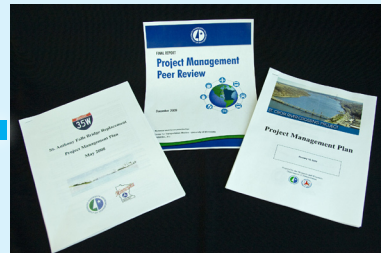
Construction of 400-foot tall bridge pier

Program and Project Development

Implementation of Cost Estimation /Cost management, Scoping, Project Management, and Risk Management Practices in Minnesota's Statewide Bridge Improvement Program

Recognizing that better cost estimates build and maintain public trust, the Minnesota Department of Transportation developed a cost estimation/cost management (CE/CM) vision, policies and procedures to support the vision, a technical reference manual outlining the policies and procedures, and a training program for employees.

Owner: Minnesota Department of Transportation



Mn/DOT peer review report and project management plans

Honorable Mention

Urban Highways: Freeways and Expressways

*State Route 13, Kansas Expressway,
Diverging Diamond Interchange
Springfield, Missouri*

The nation's first diverging diamond was built to alleviate congestion on the heavily-traveled Kansas Expressway while providing a unique pedestrian/bicycle crossing down the middle of the bridge. The innovative design was used because it could be built in less time than a more traditional interchange reconstruction, would cost much less, and would reduce crashes during and after construction.

*Designer: Missouri Department of Transportation
Contractor: Hartman and Company, Inc.
Owner: Missouri Department of Transportation*



Kansas Expressway Diverging Diamond

Urban Highways: Surface Streets

*State Route 85, Slingerlands Bypass Extension
Bethlehem, New York*

The Slingerlands Bypass Extension addressed mobility and congestion issues on Route 85 with construction of 1.5 miles of a four-lane divided highway, while striving to support development, create a gateway to the community, and connect residential, business, and recreational areas with a pedestrian network.

*Designer: Creighton Manning Engineering
Contractor: Delaney Construction
Owner: New York State Department of Transportation*



Two-lane roundabout on State Route 85

Rural Highways: Freeways

*U.S. Route 395, Sherwin Summit Rehabilitation
Inyo County, California*

The Sherwin Summit Rehabilitation Project consisted of rehabilitating pavement, widening shoulders and medians, improving culverts and drainage, modifying chain-up areas, and relocating utilities. This project is noteworthy for preserving and blending with the spectacular rock outcrops of the Volcanic Tablelands.

*Designer: California Department of Transportation
Contractor: Sierra Nevada Construction, Inc.
Owner: California Department of Transportation*



U.S. Route 395, Sherwin Summit Rehabilitation