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A NEWSLETTER FROM HENEGHAN & ASSOCIATES, P.C.

Celebrating Our 23rd Year in Business

January 2010

Structural Engineering—Bridges in the U.S.

By Cheryl A. Moody



Lake Pontchartrain Causeway Bridge

On a recent trip to Biloxi, Mississippi, I traveled over the longest bridge I have ever been on. Going from Biloxi, Mississippi to Louisiana, I estimated the bridge to be at least 5 miles long. Clocking the length of the bridge on the way back to Biloxi showed it was

almost exactly 5 miles. This bridge is the Twin Span Bridge across Lake Pontchartrain on I-10.

Researching for information on the Twin Span Bridge revealed of the world's top 10 longest bridges, 3 are located in Louisiana and six are located in the People's Republic of China. The second longest bridge in the world is the Lake Pontchartrain Causeway which crosses from Metairie, Louisiana (a suburb of New Orleans) at the southern terminus of the causeway to Mandeville, Louisiana which is the northern terminus of the causeway. This bridge consists of two parallel bridges, with the longer of the two bridges being 23.8 miles long. The bridges which are supported by more than 9,500 concrete pilings, were completed in one year.

There are six bridges in Louisiana with a total length of five miles or more. Louisiana is also home to one of the longest railroad bridges in the U.S., known as the Norfolk Southern Lake Pontchartrain Bridge, which is 5.8 miles long.

The longest bridge in the world is the Bang Na Expressway (officially **Burapha Withi Expressway**) in Bangkok, Thailand, which was completed at during the millennium year 2000, measuring 33.5 miles. Some debate its recognition as the longest bridge in the world, since it does not cross a body of water for most of its length, although it does cross a river and narrow canals. The Bang Na Expressway runs above National Highway 34 (Bang Na-Bang Pakong Road). The Bang Na Expressway was constructed to satisfy several different reasons, with one of those reasons to help alleviate traffic congestion in and around Bangkok.



The longest bridge in the world: Bang Na Expressway in Bangkok, Thailand.

About 2,350,000 cubic yards of concrete and 3 1/2 years after construction started, the Bang Na Expressway was completed.

Although not nearly as long as the longest bridge in the world or U.S., the longest

bridge in the State of Illinois, which is 1,728 feet long, is the Great River Road or Highway 100 where it crosses the Illinois River at Hardin to connect Calhoun and Greene Counties. What makes this bridge unique is its vertical lift span of 308 feet, 9 inches in length, making it the largest span of this type in the world. A section of this bridge remains horizontal as it is raised upward to allow river traffic to pass underneath. About 5 million pounds of steel and concrete were used in the bridge's construction.

The name of this bridge is the Joe Page Bridge. It was named after Joseph Page (1845-1938), who served in the Civil War and later settled in Jerseyville. Page served as Jerseyville's mayor five different times.

And the shortest bridge in the world? While some would reply with "the bridge of your nose," the shortest bridge in the world is reportedly a 30 foot bridge that connects a Canadian island with a U.S. island (right).



Recently, Heneghan and Associates added a structural engineering department to the services we provide. If you have bridge or other structural engineering concerns, contact Larry Thompson at the Jerseyville office.

CLIENT SPOTLIGHT- Gateway Water-Jack Hendrick



Heneghan and Associates congratulates manager of the Gateway Regional Water Company Jack Hendrick for his recent recognition by the Illinois Environmental Protection Agency for the Operator of the Year award.

Heneghan and Associates was one of the major players in making Gateway a reality from its conception in the 1990's to completion in 2008. Located in Sandoval, one of Gateway's most unique assets is the regionalization and cooperation between its 12 different members which includes local communities and water companies.

Our hats go off to Hendrick for being awarded the highest professional honor a water operator can receive in recognition of service and performance in the water works industry.

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Questions or comments? Contact Lisa Mollet or Cheryl Moody at 618-281-8133 or lbmollet@heneghanassoc.com or camoody@heneghanassoc.com.

MEET & GREET Craig Olsen, P.E.



This month's "Meet & Greet" employee is Mr. Craig Olsen. Craig was hired in 19 by Heneghan and Associates as division manager of the Centralia office. Craig has 37 years of experience a civil engineer. Craig is originally from New Athens where he and his family still reside. He graduated from the

University of Missouri at Rolla in 1981 where he received a bachelor of science degree in civil engineering. While Doug is adept with all phases of engineering, his specialty is transportation. Doug has a thorough knowledge of the different kinds of funding mechanisms available to help with the completion of highway and road projects as well as the procedures and policies of working with the Illinois Department of Transportation. Some of Doug's current projects include assisting Concordia Water Coop in extending water lines along areas of Stookey and Millstadt Townships, rehabilitation of the sanitary sewage treatment plant for the Village of Maecystown, expanding recreational facilities for the Village of Lenzburg, and roadway projects in Jerseyville, Staunton and Mt. Vernon.



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