G-I Organizational **Member News**

Langan Employees Respond in the Wake of Hurricane Irene

Langan Engineering & Environmental Services and its employees quickly responded to the recent natural disasters impacting citizens around the country by donating $25,000 to the American Red Cross. Half of the money, $12,500, came directly from employees. Langan matched the amount to bring the total to $25,000, which went directly to victims of Hurricane Irene and the devastating tornados that hit Alabama and other Southeastern states.

"Citizenship is a core value at Langan, and the selfless actions of our employees during an economic recession, show that we all take citizenship to heart by generously giving to people in need across the country," said **David T. Gockel, P.E., M.ASCE,** president/CEO. "Hurricane Irene and the other recent natural disasters directly affected many of the communities where Langan employees live and work, and we all hope that this contribution will help our neighbors begin the rebuilding process."

Langan and its employees have a consistent track record of giving to the American Red Cross in the wake of catastrophes. In the past seven years, Langan fundraisers amassed more than a quarter million dollars for victims around the world including those affected by the earthquake and tsunami in Japan, earthquakes in Haiti and China, the Myanmar cyclone, Hurricane Katrina, and other severe storms in the United States.

World's Largest Cutter Soil Mixing Tool

Malcolm Drilling Company (Malcolm), installed the new deep foundation systems for Seattle's current Alaskan Way Viaduct Replacement Project. Designed for WSDOT by Shannon & Wilson, Malcolm furnished and installed, at depths up to 106 ft below grade, soil/cement mixed panels for construction of confinement cells around the new drilled shaft column supports. The purpose of the confinement cells is to protect the drilled shafts from seismically induced lateral spread and the induced lateral load along with liquefaction mitigation and down drag effects. The soil/cement panel walls were designed to be a minimum of 5 ft wide and were originally anticipated to be constructed with two staggered rows of overlapping 3.25 ft diameter soil mixed columns to achieve this width. However, a one-only custom-made 5-ft-wide BCM 10 cutter soil mixing (CSM) tool mounted on a Bauer BG40 drill rig was used to construct the continuous soil mixed panel walls in a single pass. Construction of a 5-ft-wide panel with a single pass of the cutter head greatly improved the consistency and quality of the wall and reduced the overall construction duration. Rick Hanke, project manager for Malcolm, stated, "Being a part of the development of a tool that is rated as the largest of its kind in the world can't be anything other than fascinating. I always appreciate the vast equipment resources that Malcolm has to offer."

Malcolm expects to complete the deep foundation work within the first quarter of 2012, allowing the crews from Skanska USA Civil to move forward with above-grade construction. This new section of viaduct will eventually be incorporated into the south portal of Seattle's future SR-99 deep bore tunnel.

Cutter Soil Mixing tool, Alaskan Way Viaduct Replacement Project, Seattle, WA.

Nicholson Awarded Port of Miami Tunnel Grouting Work

Nicholson was recently awarded a multi-million dollar contract to perform grout work on the new Port of Miami Tunnel, which will provide a direct connection from the Port of Miami to Watson Island.

The 3,900-foot structure will include twin tunnels, parts of which will be constructed beneath the main shipping channel within Biscayne Bay. Each tunnel will be 41 ft in diameter and will hold two lanes of traffic. At their lowest points, the tunnels will be 120 ft below sea level. The twin tunnels are expected to be operational by May of 2014.

The tunnels will be constructed using a tunnel boring machine (TBM) custom-created by German firm Herrenknecht. The new TBM, which will be several stories high and the length of almost two football fields, will be shipped to the U.S. in pieces, barged from the port to Watson Island, and then assembled while underground. Nicholson was contracted to fill voids in the existing rock layer ahead of the massive new TBM using mortar grout mix.

A portion of Nicholson's drilling and grouting work will be performed on-shore at Watson Island, while the other portion will be performed off-shore, using barges on the channel between Watson Island and the Port of Miami. The off-shore drilling and grouting will be performed under a double confinement system to avoid channel pollution.

Drilling operations will be recorded via a drilling parameter recording system. All of Nicholson's grouting work will be monitored using GROUT I.T., a Soletanche Bachy state-of-the-art computerized control and data collection system.

"We are very pleased to be part of such a renowned geotechnical construction team, working alongside Herrenknecht and Bouygues Civil Works Florida, Inc.," said Laurent Lefebvre, Aff.M.ASCE, executive vice president, Nicholson Construction. "It's a great opportunity for Nicholson to demonstrate our expertise in all aspects of tunnel construction."

S&ME Expands Via Assets Purchase of BBCM

Randy Neuhaus

S&ME, Inc. took its first steps in expanding beyond its traditional southeastern footprint by acquiring Ohio-based BBC&M Engineering, Inc. About 75 former BBCM employees joined S&ME, increasing the company's employment to nearly 1,100. Though concentrated heavily in the Southeast, S&ME has completed projects throughout much of the U.S. and in the Caribbean. The addition of BBCM is a continuation of S&ME's strategic growth plan. Market segments served include energy, transportation, industrial, federal, state and municipal government, solid waste, ports and terminals, healthcare, education, and petroleum retailing.

S&ME President **Randy Neuhaus, P.E.** stated, "Clients will benefit through enhanced services, as well as access to a deeper pool of expert talent to help them solve project challenges. We're excited to bring on BBCM's expertise in geodesign services and experience with mine reclamation and earthen structures including dams, landfills and upground reservoirs."

Schnabel Engineering Ranked 9th on CE News List

Schnabel Engineering, Inc.