

groundbreaking solutions

NEWS YOU CAN BUILD ON

2011 issue 1

Foundation testing for Fort Street rebuild in Detroit

When the Michigan Department of Transportation (MDOT) several years ago announced a switch to load resistance factor design methods in its bridge foundation piling specifications, G2 Consulting Group's geotechnical experts saw an opportunity to remain on the cutting edge of deep foundation testing by investing in dynamic pile testing technology. They purchased a pile driving analyzer (PDA) manufactured by Pile Dynamics, Inc., and completed extensive training to proficiently operate the test equipment and analyze its findings.

In the two years since, engineering and construction companies including Posen Construction of Shelby Township, Mich., have relied on G2's dynamic pile testing on pile foundations for several MDOT and local government projects. Posen recently chose G2 again, this time to provide consulting services and dynamic pile testing on pile foundations for an extensive reconstruction of Fort Street/M-85 between Schaffer and Outer drives in Detroit. The MDOT project involves a complete demolition and reconstruction of Fort Street, including a viaduct that carries Fort Street over several sets of railroad tracks.

The existing structures experienced significant settling due to poor soil, so MDOT chose pile-supported foundations for the new bridge structures, retaining walls and roadway surface. The design incorporates more than 900 piles extending up to 100 feet below the finished grade to support the new viaduct system. Given the project's extensive use of piles, G2's pile-testing program – which includes static load tests and dynamic testing – gave the project design engineer the data required to use the highest design factor possible, for a cost-effective foundation design that used 80 percent of the ultimate pile capacity.

To date, G2 has completed dynamic testing on 17 piles for the Fort Street project, and provided consulting and analysis services on two static load tests for the project. G2's quick turnaround of the analysis and test results report helped Posen minimize downtime on the project.



G2 conducts static pile load tests on this foundation. More than 900 piles support the new bridge structure.

G2: The Geo-logical Choice

We're proud to announce the following new clients and projects!

- >>> **client:** Cunningham-Limp Company
project: Detroit Country Day Fieldhouse, Beverly Hills, MI – geotechnical and construction engineering
- >>> **client:** Richards Building Supply Inc.
project: Richards Building site in Melrose Park, IL – Phase I/II and ground-penetrating radar
- >>> **client:** Atwell, LLC
project: Proposed bank in Portage, IN – geotechnical services
- >>> **client:** Data-Cell
project: Telecom sites in Illinois – construction engineering services
- >>> **client:** Dan's Excavating, Inc. and Wade-Trim, Inc.
project: Crooks Road over M-59 for MDOT, Rochester Hills, MI – geotechnical engineering and construction engineering
- >>> **client:** MDOT
project: M-14 from Sheldon to Newburgh roads, Plymouth, MI – geotechnical engineering
- >>> **client:** Commercial Contracting Company
project: Warren Truck Facility, Warren, MI – construction engineering
- >>> **client:** Michaels Tunneling Co.
project: Massillon Road sewer, Akron, OH – geotechnical engineering
- >>> **client:** Wold Architects, Inc.
project: Bedford Elementary, Dearborn Heights, MI – geotechnical engineering
- >>> **client:** NLSM
project: 440 E. Congress, Detroit, MI – environmental consulting

12 rounds of golf in 12 hours for Rainbow Connection

G2 Consulting Group Principal Bruce Wilberding recently golfed 223 holes in 12 hours – roughly 18 holes an hour – to raise \$4,500 to fund college scholarships for children diagnosed with life-threatening illnesses.

"It was literally a sprint the whole time. We ran from the cart and back for every shot. Our only stops were to switch carts when the power died," said G2 principal Mark Smolinski, Wilberding's caddy for the Sept. 14 event at Boulder Lakes Golf Club in Chesterfield, Mich.

Wilberding was one of 15 golfers in the first annual Fairways and Dreams golf benefit on Sept. 14, which raised a total of more than \$47,000 for The Rainbow Connection's

Scholarship Fund. Since 2005, the fund has granted 21 scholarships to deserving recipients, all of whom were granted wishes by The Rainbow Connection while battling life-threatening illnesses as children.

"Our goal is to develop a fund to insure we will have this college scholarships for Rainbow Connection's wish children. All a family's resources go toward covering the costs surrounding the grave illness of a child. These families often spend their college funds saving the lives of their children," explained Jeff Hauswirth of Hauswirth Moncrief, Fairways and Dreams committee chairperson.

Organizers hoped the golfers would make it through at least 100 holes in the 12-hour outing; Wilberding and three other players completed 12 rounds with very respectable scores, and several other players finished 11 and 10 rounds each.

"Sometimes there were three groups playing a hole. A chip hit Bruce in the back. Balls were flying all over the place," Smolinski said

This was the first 100-hole event for charity in Michigan, and organizers hope to repeat it annually, Wilberding said.

To learn more about The Rainbow Connection please go to www.rainbowconnection.org or call (248) 765-6241.

G2 Dirt

G2's **Allison Lamanna** married Darrin Razzowski on Oct. 9, 2010

Casey O'Brien and wife Rachel had a baby boy, 8-lb, 1-oz., 21-inch Shaden Patrick, Nov. 15.

G2's **Alan Scott** welcomed a daughter, Brooklyn, on Jan. 17



Holiday donation drive for South Oakland Shelter

Employees in G2's Troy office donated a significant amount of non-perishable food, hygiene goods, and new and gently used winter clothing items for a 2010 holiday donation to the South Oakland Shelter in Royal Oak. G2's Katie Schultz, Allison Razzowski, Amber Beauchamp and Amy Schneider coordinated the collection.