



G2 tackles national telecom tower project



G2's Jeff Hayball, PE conducts pile integrity testing on a tower foundation



Excavation to investigate the dimensions and quality of a tower foundation

G2 Consulting Group recently evaluated the foundations of approximately 50 telecommunication towers across the United States for Semaan Engineering Solutions, Inc., a Nebraska-based structural engineering firm.

Semaan is evaluating the foundations of these existing monopole, freestanding and guyed towers to determine whether they can support the installation of additional antennas and communication equipment. They required specific information about the existing subsurface conditions and the towers' foundation types and dimensions. At many of the sites, the original documentation – including geotechnical reports, foundation design and as-built plans or reports – was missing or incomplete.

Extensive experience in geotechnical and foundation mapping at telecommunication sites helped G2 quickly mobilize staff experts to the tower sites and coordinate with its network of drilling and excavation contractors to efficiently complete the geotechnical and mapping services. Many of the sites were located within difficult terrain and remote areas, requiring G2 to also coordinate with land owners and obtain specialized equipment.

G2's tower foundation mapping services included excavations adjacent to foundations and anchors to view the actual foundation dimensions. These required extreme care to avoid damage or undermining of existing foundations and anchors. A G2 staff member was always on site to supervise and document the required excavation operations.

For towers supported on drilled piers, G2 utilized low-strain pile integrity testing to estimate the pier length and to identify possible discontinuities in the piers. Low-strain integrity tests are performed by measuring the impedance of a compression wave applied through the pier. The time and distance traveled by the wave can be used to estimate the pier's contiguous length.

After analyzing a site's subsurface conditions and foundation information obtained during these field operations, G2 produced a final report providing the necessary soil parameters and foundation information that Semaan needed to complete its structural evaluation of the tower. G2 provided each report within 10 days of receiving the site's location from Semaan – a very efficient turnaround.

Ricketts benefit raises \$4,000 – thanks!

We at G2 Consulting Group want to thank all the participants, silent auction sponsors and volunteers who made our Jan. 31 bowling fundraiser for Mike and Melody Ricketts a great success.

The event raised more than \$4,000, which when combined with previous donations totals approximately \$8,000 provided to help Mike and Melody through these difficult times.

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Mike Ricketts, center, with (left to right) Ian Miller, Jeff Rayner, Tony Poisson and Tim Dumala – all G2 employees



G2 The Geo-logical Choice

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

Client: French Associates and Waterford Schools

Project: Kingsley Montgomery Elementary School, Waterford, Mich. – geotechnical and construction engineering services

Client: Eagle Excavating

Project: University of Michigan Stadium improvements, Ann Arbor, Mich. – geotechnical engineering services

Client: HH Engineering and Michigan Department of Transportation

Project: Sargeant Road / I-94 interchange, Jackson, Mich. – geotechnical engineering services

Client: Nelson Companies, Inc.

Project: Cambridge Crossings, Troy, Mich. – environmental consulting services

Client: J.B. Donaldson Company

Project: Campus at Crooks and Auburn, Rochester Hills, Mich – construction engineering services

New clients:

Client: Wold Architects

Project: Roseville Community Schools, Roseville, Mich. – geotechnical engineering services

Client: Cranbrook Schools

Project: environmental consulting services, Bloomfield Hills, Mich.

Client: Design Architects II

Project: Randall Crossing Convention Center, North Aurora, Ill. – geotechnical engineering services

Client: Nationwide Construction Group

Project: Indiana Department of Transportation cable barrier foundation designs – geotechnical engineering services

Client: Site Design Solutions

Project: Flushing High School athletic fields, Flushing, Mich. – geotechnical engineering services

Client: Brandon Schools

Project: Brandon High School and wastewater treatment plant, Brandon, Mich. – geotechnical and environmental engineering services

(continued from front)

Many of our clients, friends and vendors may recall that Mike, a long-time employee in our construction engineering services group, was injured in a construction site accident in November 2008.

More than 80 people participated in the bowling fundraiser. It is heartwarming to see that people, even complete strangers, are willing to help others in times of need.

I personally would like to thank the companies and individuals that donated items to the silent auction:

- Detroit Tigers
- Detroit Red Wings
- Detroit Lions
- Detroit Pistons
- Chili's
- TGIF
- Buffalo Wild Wings
- Starbucks
- Caribou Coffee
- Golfsmith
- Kroger
- Jaguar of Lakeside
- Hylant Group
- Brian Petterlie (Hylant Group)
- Kyle O'Malley (Hylant Group)
- Tre Monte Ristorante
- Anderson, Eckstein and Westrick, Inc.
- Soils and Materials Engineers, Inc.
- The Barshaw Family

Mike is working hard in physical therapy and progressing faster than doctors thought probable. Keep up the hard work, Mike! We hope to see you back at G2 soon!

Sincerely,

Mark W. Smolinski, PE



Katie Lamb shows perfect form!

G2 adds Pile Driving Analysis technology

The geotechnical engineering group at G2 is committed to listening and responding to our clients' needs.

So when the Michigan Department of Transportation (MDOT) issued a special provision that required pile driving analysis (PDA) for specific pile driving projects (in lieu of Section 705 of the MDOT Standard Specification for Construction), G2 acquired the specialized equipment to perform the analysis. G2 personnel also participated in comprehensive training necessary to perform the analysis.

This commitment continues G2's efforts to be the leader in specialized geotechnical engineering.

"The pile driving analysis technology compliments our existing geotechnical capabilities for deep foundation consulting and design" according to Noel Hargrave-Thomas, PE, geotechnical group leader and founding principal. "We continue to strive to be the 'go-to' resource for engineers and contractors in the underground and infrastructure construction arenas".

G2 recently utilized PDA technology on the Bridgeview Road Bridge over the Clinton River in Harrison Township, providing PDA, wave equation analysis and remote vibration monitoring for Posen Construction, which is rebuilding the bridge. G2 also performed a pre-condition assessment of three nearby structures for the Macomb County Road Commission project.



G2's pile driving analysis technology at work

G2 Dirt

G2's Amber Beauchamp, an administrative assistant in the Troy office, and her husband BJ welcomed a daughter, Abigail Elizabeth Beauchamp, on March 23.

