



2013 - 2014

May Meeting Notice

Minnesota Geotechnical Society

Design of a Rescue Shaft for Bertha

Todd Christopherson, P.E., Senior Consultant

A.J. McGinn, P.E., PhD, President/CEO

Brierley Associates

Bertha, the largest Tunnel Boring Machine (TBM) in the world, was built for the Washington DOT and its Contractor, Seattle Tunnel Partners, to bore a 57 foot diameter tunnel through downtown Seattle. The tunnel will carry two levels of traffic when completed and will replace the aging two level viaduct for Highway SR99 that runs through Seattle. The planned tunnel route is 9,270 feet and in December 2013, Bertha had completed about 11% of the tunnel when it became stuck. In March, 2014 Brierley Associates was hired by the Contractor to design a “Rescue Shaft” to be built in front of the stalled TBM. Once the shaft is completed, the TBM will be moved forward into the shaft for repairs. The shaft design is approximately 80 feet in diameter and 120 feet deep and will include measures to hold back high groundwater. In addition, allowable ground settlements are extremely small due to the close proximity of the existing viaduct which remains in use until the new tunnel is operational. Representatives of Brierley Associates will give an overview of their geotechnical and structural design of this unique project.

Date: Wednesday, May 14, 2014

Location: Rose Vine Hall (downstairs at Grumpy's Bar & Grill)
2801 Snelling Ave. N., Roseville, MN

Time: 6:00 Social Hour and Dessert – Brierley Associates

7:00 Dinner: Salad, Rolls, Coffee/Soda and a choice of:

1. 10-Ounce Top Sirloin - Char-grilled and topped with bleu cheese garlic butter. Served with white cheddar mashed potatoes and a sautéed vegetable medley – \$35.00*
2. Stuffed Pork Chops - Two char-grilled pork chops stuffed with golden raisins, cornbread and apples – \$35.00*
3. Feta Cheese and Sun-Dried Tomato Stuffed Walleye - Served over white cheddar mashed potatoes with a drizzle of lemon thyme butter sauce – \$35.00*
4. Chicken Fettuccine Alfredo - Fettuccine noodles, snow pea pods, and mushrooms tossed in an Alfredo cream sauce and topped with a grilled chicken breast and parmesan cheese – \$30.00*
5. Cobb Salad - Iceberg topped with turkey, ham, bacon, hard cooked eggs, avocado, diced tomatoes, bleu cheese crumbles, and black olives with choice of dressing (Ranch, FF Ranch, Bleu Cheese, French, FF French, Italian, FF Italian, Balsamic Vinaigrette) – \$25.00* *See Cost

8:00 Presentation – Todd Christopherson, P.E. & A.J. McGinn, P.E., PhD – Brierley Associates
(One professional development hour toward continuing education requirements for Professional Engineers is available).

Cost: Paid 2013-2014 MGS Members receive a \$5 meeting discount on the meal costs listed above. The cost to Full-time students is \$5, payable to MGS at the door.

Reservations: Requested by 12 Noon, Friday, May 9, 2014

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Kurt Heckendorf	Joel Swenson	Kyler Bender	Bill Cody	Josh Van Abel	Joe Bentler	Chad Underwood	John Allen
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Please print, fill out and bring the New Membership Application to the next meeting. The form is at:
<http://www.mngeotechnicalsociety.com/aboutmembership.asp>

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