



**2011 - 2012**

*May Meeting Notice*

**Minnesota Geotechnical Society**  
***Duluth Chapter***

**Analysis and Performance Monitoring of a Spread Footing  
Bridge Foundation during Construction Loading**

**Joe Bentler, P.E.**

**American Engineering Testing, Inc.**  
**St. Paul, Minnesota**

Detailed foundation analyses showed the feasibility of supporting the abutments of a two-span freeway bridge for TH 212 in Chaska on spread footings founded on overconsolidated glacial till. Embankments were used to preload both abutment areas prior to footing construction to reduce long-term settlements to tolerable amounts. The design-build team worked with the Minnesota Department of Transportation to develop a cooperative instrumentation program to monitor bridge performance during construction and provide data for comparison with the anticipated foundation response during the staged construction process. Instrumentation included optical survey targets, inclinometers, earth pressure cells, and tiltmeters. Monitoring data indicated overall good agreement between predicted abutment behavior and the measured response.

**Date:** Wednesday, May 2, 2012

**Location:** Grandma's Canal Park: 425 South Lake Avenue, Duluth, MN

**Time:** 11:45 am Registration and begin lunch buffet, including:

**Penne from Heaven Buffet**

Penne pasta with basil, garlic, fresh Roma tomato sauce and imported Parmesan cheese. Served with our house salad and freshly baked Italian breadsticks.

**Triple Chocolate Truffle Cheesecake**

A decadent blend of chocolate mousse surrounded by creamy bittersweet chocolate cheesecake topped with crunchy dark chocolate

**\*Dessert is sponsored by Barr Engineering Company**

12:00 pm Presentation, Joe Bentler P.E., American Engineering Testing, Inc.

**Cost:** \$15.00 members and non-members, and \$10 full-time students, payable to MGS at the door.

**Reservations:** Requested by 12 Noon, Friday, April 27, 2012

Please register via the website at <http://www.mngeotechnicalsociety.com/eventsduluth.asp>

Please print, fill out and bring the New Membership Application to the next meeting. The form is at: <http://www.mngeotechnicalsociety.com/newmemberapp.asp>

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