



# Pre-conference Workshop: Geotechnical Considerations for Bridge Foundation Design & Construction

March 17, 2015

*Moderator: Christopher Byrum, Ph.D., P.E.,*

**7:00 Check-in**

**7:55 Opening Remarks**

**8:00 Geotechnical Engineering and Michigan Geology**

Christopher Byrum, Ph.D., P.E., Geotechnical Engineer  
*Soil & Materials Engineers Inc*

**8:45 MDOT Perspectives on Geotechnical Engineering for Bridges**

Ryan Snook, P.E., Bridge MDOT Foundation Analysis Engineer  
*Michigan Department of Transportation*  
Richard Endres, P.E., Supervising Engineer  
*Michigan Department of Transportation*

**9:30 Cofferdam Design and Construction Basics**

Anthony Pietrangelo, P.E.  
*Soil & Materials Engineers Inc*

**10:00 Break**

**10:15 Bridge Abutment Analysis and Design Example: Evaluation through Construction**

Christopher Byrum, Ph.D., P.E., Geotechnical Engineer  
*Soil & Materials Engineers Inc*  
Douglas Parmerlee, P.E.  
*AECOM*

**12:00 Lunch**



- 5      **1:00    Increased LRFD Axial Resistance Factors for Piling Using Static Load Test and PDA**  
Christopher Naida, P.E.  
*Soil & Materials Engineers Inc*  
Christopher Johncheck, P.E., Geotechnical Engineer  
*Michigan Department of Transportation*
- 6      **1:35    Bridge Replacements on I-196: Teamwork between the Bridge and Geotechnical Engineers**  
Jonathan Zaremski, P.E., Project Manager, et al  
*Somat Engineering*
- 7      **2:15    Rock Engineering I-196: WB Bridge over the Grand River, Grand Rapids, MI**  
Melinda Bacon, P.E.  
*Soil & Materials Engineers Inc*
- 3:00    Break**
- 8      **3:15    Wadhams Road Bridge Replacement: Bridging Over a Moving Site**  
Douglas Parmerlee, P.E., et al  
*AECOM*
- 9      **4:00    Geosynthetics and Lightweight Fills for Bridge Abutments and Approaches**  
Christopher Byrum, Ph.D., P.E., Geotechnical Engineer  
*Soil & Materials Engineers Inc*
- 10     **4:45    FHWA's GeoTechTools Software & Closing Remarks**  
Christopher Byrum, Ph.D., P.E., Geotechnical Engineer  
*Soil & Materials Engineers Inc*
- 5:00    Adjourn**
- 5:30    Buffet Dinner**
- 6:30    Michigan Tech CEE Alumni Event**