

### The Canadian Society for Civil Engineering

# CANADA

## The Canadian Geotechnical Society

London District Section

2006 / 2007 Program

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WWW.ENG.UWO.CA/CSCE

#### 2006 / 2007 Program

#### WEDNESDAY SEPTEMBER 20<sup>TH</sup>, 2006 THREE LITTLE PIGS FACILITY TOUR

DR. MIKE BARTLETT, UNIVERSITY OF WESTERN ONTARIO

## WEDNESDAY OCTOBER 18<sup>TH</sup>, 2006 WATER FOR OUR CHILDREN

DR. SLOBODAN SIMONOVIC, UNIVERSITY OF WESTERN ONTARIO

#### WEDNESDAY NOVEMBER 15<sup>TH</sup>, 2006 TO BE ANNOUNCED

DR. GREG KOPP, UNIVERSITY OF WESTERN ONTARIO

#### WEDNESDAY JANUARY 17<sup>th</sup>, 2007 DETROIT RIVER INTERNATIONAL CROSSING

DR. STORER BOONE, GOLDER ASSOCIATES LTD.

#### WEDNESDAY FEBRUARY 21<sup>ST</sup>, 2007 CITY OF LONDON'S SOUTHEAST TERMINAL RESERVOIR AND PUMP STATION

JOHN ARMISTEAD AND JOHN PUCCHIO, EARTH TECH CANADA INC.

WEDNESDAY MARCH 21<sup>ST</sup>, 2007 LONDON'S JOURNEY IN ALTERING THE PROCESS OF SELECTING ENGINEERING CONSULTANTS

PETER STEBLIN, CITY OF LONDON SEE OTHER SIDE FOR DETAILS.

#### **Notes About All Meetings**

Meetings will be held on Wednesday evenings.

#### September 20th, 2006 Tour:

Location: Three Little Pigs Facility, 1961 Otter Place

(at the very east end of Huron) **Time:** Please arrive by 5:30 p.m.

**Price:** \$10 (Pizza and soft drinks to be provided)

#### All other meetings:

- Dinner Meetings Location: Elephant & Castle Restaurant, located at King St. and Wellington St. (Galleria Mall). Free Parking in Galleria lot.
- Cash bar is available.
- Networking opportunity commences at 5:45 p.m.
- *Dining at 6:30 p.m.*
- Presentation at 7:15 p.m., followed by Q & A.

#### **GREAT PRICES!**

#### Pricing to attend an individual meeting:

Student \$ 10
 CSCE / CGS Member \$ 15
 Non-Member \$ 20

#### The Best Deal - a DINNER CARD!

## Purchase a <u>DINNER CARD</u> – we'll give you one meal free!

Lets the cardholder attend all 6 events – just flash the card and you're in!

Same great price for members and non-members.

Completely transferable ... share it among friends, staff, etc.

Standard Dinner Card \$ 70 Student Dinner Card \$ 50

Cards can be purchased at the September meeting. Contact Elsie Mae Clements @ (519) 964-5900, ext. 6361 (email: <u>clemente@gdls.com</u>) for more details.

#### Wednesday September 20th, 2006 Presenter: Dr. Mike Bartlett, Ph.D., P. Eng., University of Western Ontario

#### **Three Little Pigs Facility Tour**

Western's Three Little Pigs Facility, located at the east end of Huron Street, is a \$6.8 M laboratory that will test full-scale houses and light-frame buildings to destruction using realistic dynamic wind loads. Other research to be carried out at the facility includes investigations of typical construction errors and building envelope performance, including the initiation and growth of mould. A system of ten pressure load actuators is currently being assembled. The tour will include the control and cover buildings, the steel reaction frame (generously donated by members of the Ontario Region of the Canadian Institute for Steel Construction) and the first test specimen, constructed by Construction Technology students at Fanshawe College as part of their regular course work. **Please Note**: Pizza and soft drinks will be provided following the tour. Closed toe or safety shoes required. It can be cool in the facility, please dress accordingly.

<u>Wednesday October 18th, 2006</u> Presenter: Dr. Slobodan Simonovic, Ph.D., P. Eng., University of Western Ontario Water for our Children: Three Strategies to Overcome World Water Management Crisis

For some, the water crisis means having to walk long distances every day to get enough drinking water. For others, it means suffering from avoidable malnutrition or disease caused by drought, flood or inadequate sanitation. Still others experience it as a lack of funds, institutions or knowledge to solve local problems of water use and allocation. There is enough water for everyone. The problem we face today is largely one of governance: equitably sharing of water while ensuring the sustainability of natural ecosystems (World Water Development Report 2, 2006). Changing demographics and population movements; shifts in geopolitics; fast developing information and communication technologies; plus the impacts of climatic change and extreme weather conditions are all making the world a more challenging place for decision-makers. Poverty, warfare and preventable disease still affect much of the world's population, often in developing countries and in increasingly crowded urban conditions. Presentation focuses on three strategies to overcome world water crisis: Integrated Water Resources Management, Partnership, and Managing Risks.

Wednesday November 15th, 2006 Presenter: Dr. Greg Kopp, Ph.D., P. Eng., Boundary Layer Wind Tunnel, University of Western Ontario

Topic to be announced. See our website for presentation announcements. www.eng.uwo.ca/csce

Wednesday January 17th, 2007 Presenter: Dr. Storer J. Boone, Ph.D., P.E., P.Eng., Golder Associates Ltd.

#### The Detroit River International Crossing

The Detroit River International Crossing project is being undertaken by a joint partnership between Transport Canada, Ministry of Transportation Ontario, United States Federal Highway Administration, and Michigan Department of Transportation. An Environment Assessment (EA) study is underway to determine the best potential route to link Highway 401 in Ontario with Interstate 75 in Michigan. A location near south-central Windsor was chosen as a potential bridge crossing site. This chosen crossing area, however, has been subjected to salt mining over the past 100 years and, in 1954, a large sinkhole developed on a nearby property. To assist in confirming that the potential bridge sites are suitable for bridge construction, boreholes up to 500 m deep are being drilled at potential bridge locations. A special geophysical testing technique is also being used to look at the quality of the rock between the widely spaced boreholes. This presentation will include a brief outline of the crossing project, historical salt mining activities, the mechanisms of sinkhole formation, and the unusual subsurface investigations being undertaken by Golder on behalf of the MTO. Golder is involved in this work as the geotechnical consultant on the Canadian side as part of a team led by URS Corporation.

Wednesday February 21st, 2007 Presenters: John Armistead, P. Eng., and John Pucchio, P.Eng., Earth Tech Canada Inc.

#### City of London's Southeast Terminal Reservoir and Pump Station

In recent years, the need for greater supply and storage of potable water has become more acute in the southeastern portion of the City of London, due to inadequate water pressure and existing reservoir capacity. With continued developmentalong the Highway 401 and Airport Road corridors, demand for water will continue to grow. The Southeast Terminal Reservoir and Pumping Station Facility is designed to provide adequate water supply, pressure and storage for 113 million litres. The Reservoir is a buried two cell cast-in-place concrete structure, measuring 203 m long x 83 m wide x 9 m high. The overall facility incorporates the use of high performance materials and sustainable design practices, which conforms to the requirements of the LEED (Leadership in Energy and Environmental Design) Green Building Rating System. As well, the site integrates the infrastructure design with public access/recreation facilities by incorporating future development of a BMX Track, Off-Leash Dog Park and water feature. This discussion will provide an interesting review of the project need, approval requirements, design details and integration of alternative site uses.

Wednesday March 21st , 2007 Presenter: Peter Steblin, P.Eng., City of London

#### **London's Journey in Altering the Process of Selecting Engineering Consultants**

In 2004, the City of London made significant changes to its process for selecting Consulting Engineers, which emphasized quality-based measures as its primary objective. Endorsed by the Ontario Society of Professional Engineers and Infraguide's best practices for procurement of engineering services, this started a journey of changing how other Canadian cities approached this topic. The City of London continues to evolve its process to take into account changing conditions over time, and is seen as a leader in this regard.