

# The Canadian Society for Civil Engineering

## The Canadian Geotechnical Society





#### 2005 / 2006 Program

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#### CALENDAR OF EVENTS

WEDNESDAY SEPTEMBER 14<sup>TH</sup>, 2005 The Toronto Subway Tom Middlebrook, Toronto Transit Commission

WEDNESDAY OCTOBER 19<sup>th</sup>, 2005 Chance Anchors Dino Vito, EBS Engineering and Construction

<u>Wednesday November 16<sup>тн</sup>, 2005</u> Cross Israel Toll Highway Aecon Constructors

**WEDNESDAY JANUARY 18<sup>TH</sup>, 2006 STORING MINE TAILINGS UNDER WATER TO PROTECT THE ENVIRONMENT** DR. ERNEST YANFUL, UNIVERSITY OF WESTERN ONTARIO

WEDNESDAY FEBRUARY 15<sup>th</sup>, 2006 Providing Geographic Information in the Internet Age John Bontje, City of London

<u>Wednesday March 8<sup>тн</sup>, 2006</u> Frontline Storm Chasers – Experience from the Florida Coastal Monitoring Program Kurt Gurley, University of Miami

 $\ensuremath{\mathsf{S}}\xspace{\mathsf{EE}}$  other side for details.

### <u>Notes About All Meetings</u>

- Meetings will be held on Wednesday evenings.
- Location: Hook's Restaurant, located at Wharncliffe Road / Southdale Road. Free parking.
- Cash bar is available.
- Networking opportunity commences at 5:45 p.m.
- Dining (buffet-style) at 6:30 p.m.
- Presentation at 7:15 p.m., followed by Question & Answer session.

## **GREAT PRICES!**

#### Pricing to attend an individual meeting:

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

# <u>The Best Deal – a DINNER CARD!</u>

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 alike.

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

Standard Dinner Card	\$ 75
Student Dinner Card	\$ 50

Cards can be purchased at the September meeting. Contact John Simon @ 661-4938 (email: <u>jsimon@london.ca</u>) for more details.

#### Wednesday September 14th, 2005 Presenter: Tom Middlebrook, P. Eng., Toronto Transit Commission

#### The Toronto Subway

Tom Middlebrook, Chief Engineer, Toronto Transit Commission, will provide a history of Toronto's public transportation and the evolution of the city's public transportation system to Rapid Transit. Focusing on the design and construction of the Yonge Street Subway, Canada's first subway, and discussions of recent subway planning initiatives and plans for the next two projects. The Yonge Street Subway was recently recognized as a CSCE National Civil Engineering Historic Site.

#### Wednesday October 19th, 2005 Presenter: Dino Vito, M.A.Sc., P. Eng., EBS Engineering and Construction

#### **Chance Helical Pier Foundation System**

The Chance Helical Pier Foundation System is a screw pile, which causes no vibration or spoils during installation. The system can be used for retrofit and new construction in compression and tension applications. This presentation will introduce EBS Engineering and Construction Limited (C3 Group), the theory on the Chance Helical Piers/Anchors (Deep foundation system) and will examine case histories ranging from residential, industrial and commercial applications, including videos on stabilization of an existing structure and on the use of Pulldown Micropile System for the Chance Helical Piers.

#### Wednesday November 16th, 2005 Presenter: Aecon Constructors

#### **Cross Israel Toll Highway**

The population of the State of Israel has grown by two million people to nearly 6 million since the break-up of the Soviet Union. As a result of this growth, traffic has doubled over the last decade. Israel needed a way to develop a new highway, in an environmentally and historically delicate region connecting Jerusalem past Tel Aviv through to Highway 65 near Haifa. The government wanted to develop this 86 km long infrastructure project at minimal cost to the taxpayer. Building on the experience of developing the world's first all-electronic toll highway - the 407 ETR north of Toronto – Canadian Highways International Corporation (CHIC), Aecon's 50% owned subsidiary, proposed a privately financed, constructed and operated toll highway for Israel. The 407 was successfully developed by bringing the expertise of many leading North American companies together to create a new approach to toll highways. In the same manner, CHIC, brought together 37 Israeli and foreign firms to provide engineering, quality assurance, environmental consulting, legal, financial, communications and marketing services. The US \$ 1.2 billion project comprised of 13 interchanges, 88 bridges a pair of three lane tunnels and 86 km of highway.

Wednesday January 18th, 2006 Presenter: Dr. Ernest Yanful, Ph.D. P.Eng., University of Western Ontario

#### Storing Mine Tailings Under Water to Protect the Environment

One of the methods of managing reactive sulphide mill tailings is using water covers, especially in temperate climates. This presentation will review the concept of flooding tailings using water cover technology and discuss the nature and extent of resuspension in both oxidized and unoxidized tailings and the consequent deterioration of pond water quality, using examples from Canadian and Scandinavian sites. Several case studies showing the performance of water covers in many parts of the world will be presented. The discussion will conclude with the presentation of new methodology and software, *RESUSPEND*, for designing shallow water covers under given wind climate, tailings characteristics, and site hydrology.

Wednesday February 15<sup>th</sup>, 2006 Presenter: John Bontje, P. Eng., City of London

#### Providing Geographic Information in the Internet Age

Widespread use of the Internet at work and at home has created an expectation that almost any information should be available on demand. This has affected how GIS services are made available to staff and the public and, more importantly, increased the need for information "generators" to be aware of the risks and responsibilities. This situation, with commentary, will be illustrated with scenarios drawn from the City of London's experiences.

Wednesday March 8th, 2006 Presenter: Kurt Gurley, University of Miami

#### Frontline Storm Chasers – Experience from the Florida Coastal Monitoring Program

Over the last few hurricane seasons a team from several Florida Universities and Institutions have been involved in measuring the surface winds in hurricanes and the associated wind effects on housing and other structures directly in the path of these storms. The speaker will present some of the technical findings and some of the unique challenges in setting up experiments in driving rain and 60+ mph winds.