

Manhole Assessment and Rehabilitation

PRESENTED BY: CENTRE FOR ADVANCEMENT OF TRENCHLESS TECHNOLOGIES (CATT)



Canadian Construction Association (CCA) Gold Seal Accredited Course

Tuesday, March 26, 2019

7:30AM - 4:00PM

**BREAKFAST, LUNCH AND REFRESHMENTS
INCLUDED**

MISSISSAUGA GRAND
35 Brunel Road, Mississauga

ALSO AVAILABLE VIA LIVE WEBCAST!

OVERVIEW

This workshop presents the inspection and trenchless rehabilitation methods for maintenance holes. The workshop addresses the growing problem of manhole deterioration. Inflow and infiltration solutions have been discussed extensively for sanitary and storm sewers. However, these measures may be limited if manhole chambers are neglected. Consequently, an increasing amount of attention has been paid to the rehabilitation challenges facing sewer maintenance holes. As in other aspects of the sewer system where trenchless technologies are replacing excavation, this seminar will highlight the inspection and trenchless rehabilitation methods for maintenance holes.

SCHEDULE*

7:30 - 8:00 AM | Registration and Breakfast

8:00 - 8:30 AM | Introduction and Historical Overview of Manhole Construction Methods, *Jonathan Pearce, CATT*

8:30 - 9:00 AM | Manhole Failure Mechanisms and Failure Modes, *Jayne Harris, Jacobs*

9:00 - 9:30 AM | Manhole Inspection and Condition Assessment *Tanya Stephens, TDS Consulting/Gord Henrich, P.I.T.A.*

9:30 - 9:45 AM | Networking and Coffee Break

9:45 - 10:30 AM | Overview of Bonded and Non-bonded Manhole Renewal Systems and QA/QC, *Patrick Moskwa, Robinson Consultants*

10:30 - 11:00 AM | Structural vs Non-structural Design of Liners Thickness, *Ian Doherty, Trenchless Design Engineering*

11:00 - 11:30 AM | Cleaning, Preparation and Grouting Prior to Renovation, *Chris Hughes, Kelso Coatings*

11:30 AM - 12:00 PM | Structural, Infiltration and Chemical Resistant Manhole Rehabilitation, *Dustin Schlachter, OBIC*

12:00 - 12:45 PM | Lunch

12:45 - 1:30 PM | Case study - Manhole Rehabilitation using Bonded System, *Mark Murphy, Raven Linings System*

1:30 - 2:00 PM | Case Study, *TBD*

2:00 - 2:30 PM | Case study - Manhole Rehabilitation using Non-bonded System, *Rob Emmerson, Sprayroq*

2:30 - 2:45 PM | Networking and Coffee Break

2:45 - 3:15 PM | Watertight Manholes, *Jason Clowater, Hamilton Kent*

3:15 - 3:45 PM | Manhole Appurtenances, *Gord Henrich, P.I.T.A.*

* Subject to modifications

WHO SHOULD ATTEND THE

WORKSHOP? Municipal engineers, technologists, technicians, operators, engineering consultants, contractors, suppliers, and pipe manufacturers

WHAT IS INCLUDED?

- Course material
- Breakfast, Lunch, and Refreshment during networking breaks
- 0.7 CEU's

Registration Form

Manhole Assessment and Rehabilitation

Tuesday, March 26, 2019 | Mississauga Grand, 35 Brunel Road, Mississauga

UPCOMING CATT EVENTS

EMERGING TRENCHLESS TECHNOLOGIES
APR-10

BC TRENCHLESS TECHNOLOGY ROAD SHOW
2019
MAY 7-8

NAME: _____

TITLE: _____

COMPANY: _____

ADDRESS: _____

CITY: _____

PROV: _____

POSTAL CODE: _____

PHONE: _____

EMAIL: _____

EARLY BIRD REGISTRATION

RECEIVED BY: **February 28**

\$375/CATT MEMBER \$550/NON-MEMBER

REGULAR REGISTRATION

RECEIVED BY: **March 1 to March 21**

\$475/CATT MEMBER \$650/NON-MEMBER

ON-SITE REGISTRATION

RECEIVED AFTER: **March 21**

\$575/CATT MEMBER \$750/NON-MEMBER

Tax (HST 13%) \$ _____ Total \$ _____

LIVE WEBCAST

I would like to attend via LIVE WEBCAST

METHOD OF PAYMENT

Pay Online. Visit WWW.CATTEVENTS.CA (as per UW policy, we are no longer allowed to collect any credit card information. Please register online if you wish to pay by credit card)

Invoice Company

Cheque (Payable to "University of Waterloo, Attn: Centre for Advancement of Trenchless Technologies"). Please add 13% HST for total amount due.

Completed registration can be faxed to **(519) 746 6556** OR emailed to catt@uwaterloo.ca

MAIL: University of Waterloo/CATT, Waterloo, ON N2L 3G1
ph 519 888 4770 f 519 746 6556

THE CENTRE FOR ADVANCEMENT OF TRENCHLESS TECHNOLOGIES

(CATT) was established in 1994 to help municipalities address their buried infrastructure challenges using new and less disruptive trenchless construction methods and infrastructure asset management practices. Since 1994 CATT has been recognized as an international leader in buried infrastructure construction, condition assessment, renovation and asset management.

For more information on CATT and member benefits visit www.catt.ca.

Refund Policy: please visit www.catt.ca for details on CATT's refund policy.

PLATINUM MEMBERS



GOLD MEMBERS

