BECOR

Building Envelope Council Ottawa Region

Water Intrusion Detection Using Infrared Cameras -

How to See Latent Moisture Behind Walls, Floors & Ceiling That Lead to Mold Problems

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A luncheon seminar on recent advancements of infrared cameras and their ability to non-destructively detect interstitial moisture by means of interior and exterior building inspections.

December 7, 2005

11:30 AM to 4:00 PM

Sala San Marco

215 Preston Street

Ottawa Ontario

RSVP (Registration for event is requested)

A luncheon seminar for building designers including architects and engineers, builders, contractors, indoor air quality inspectors and remediators, building maintenance personnel, specifiers, project managers, building owners, property managers and building operators concerned about potential moisture within both the building interior and the building envelope that could lead to possible building material deterioration and mold and IAQ problems.

Featuring:

Paul Frisk • ITC Canada - FLIR Systems Ltd

Tony Colantonio • Innovations & Solutions Directorate, PWGSC

With the introduction of more portable, less expensive, intuitive infrared cameras over the past 5 years, we are seeing a resurgence in interest in the application of infrared technologies within the building maintenance and management circles as well as commissioning procedures for new and retrofit project. Moisture management is a critical issue in both the day to day maintenance and new building performance assessment to reduce the risk of costly IAQ remediations due to the formation of mold in buildings. Whether we are dealing with mopping operations of roof, plumbing or HVAC failures, activated sprinkler pipes, fire damage in existing and new buildings the determination of complete drying out of all building components is critical to avoiding mold problems. The use of infrared cameras will allow for quick detection of moisture behind surfaces that is not seen visually or by moisture meters. Detection of moisture deposition within roofs and exterior walls that could lead to interior mold problems is easily carried out by infrared inspections. This seminar will discuss the latest technologies and how they are used as effective risk management tools for costly mold problems and building material deterioration.

BUILDING ENVELOPE COUNCIL OTTAWA REGION
P.O. Box 7328 • Vanier Postal Station • Vanier • ON • K1L 8E4

Afternoon Agenda

11:30 AM – 12:00 PM **Registration**

12:00 PM – 1:30 PM **Lunch**

1:30 PM – 2:15 PM **Detection of Moisture Within Wall Assemblies – By Means of Exterior Infrared Inspections Methods**
Tony Colantonio

When commissioning new building envelopes, or carrying out building condition inspections of existing building envelopes, it is imperative to differentiate the source of the moisture accumulation between interior or exterior sources since the recommendation for remedial action will vary considerably. This presentation will discuss the various types of thermal patterns created by surface penetration of water versus those patterns created by air leakage from the building interior in cold winter conditions. Various types of exterior building envelopes will be discussed along with their hygro-thermal performance characteristics and how these affect thermal patterns during various inspection procedures.

2:15 PM – 3:15 PM **Water Intrusion Detection With Infrared Camera By Means of Interior Infrared Inspection Methods**
Paul Frisk

Infrared cameras have been used in the Building Science industry since the 1970's, mainly for building envelope analysis. The infrared camera is a vital tool to determine performance characteristics of walls and roof from not only an energy standpoint but also with respect to structural integrity. With interior health issues coming to the forefront - such as mold issued, the infrared camera once again becomes a most vital diagnostic tool. The infrared camera can be readily utilized to detect moisture intrusion in building structures in a much faster, more convenient and times safer way than conventional moisture detection devices. This short presentation will illustrate the use of an infrared camera for the detection of water intrusion into a building structure.

3:15 PM – 4:00 PM **Questions and Equipment Display & Demonstrations**
Paul Frisk, Tony Colantonio

Speaker Biographies

Mr. Paul Frisk, P. Eng. (University of Toronto) has been in the INFRARED business since 1979 with the federal government and FLIR Systems. He is a Level III Thermographer (ITC) with extensive experience in Automation (Process Monitoring and Control) processes. His duties ranged from Camera and Software System Design, Manufacturing and System Installation as well as sales. Paul is a full time instructor responsible for the training activities and management for ITC – Canada.

Mr. Tony Colantonio is a building envelope architect with Public Works & Government Service Canada. He has 25 years of experience in the development of non-destructive test methodologies of buildings and building envelopes for commissioning and detailed building condition reports. He is a Level II ASNT Thermographer and sits on numerous standards committees related to building materials and performance assessment procedures.

Registration Form

RSVP - Registration Is Required Whether A BECOR Member or Not

Name		
Title		
Company		
Address		
City	**Province**	**Postal Code**
Telephone	**Fax**	**E-mail**

Registration Information

(Please circle or check-mark appropriate fee level.)

	Members		Non-Members	
Seminar Fees	**FREE**		**$20 + $1.40(GST) =$21.40**	
Students	**FREE**		**$10+$0.70 (GST) =$10.70**	

Note: Please Register Early. Registration required for catering purposes.
Full buffet lunch included with session. Door prizes for attendees also included.

Method of Payment:

If Paying by cheque: Complete the Registration form, make cheque payable to BECOR. Mail registration form and cheque to:

Tina Bradshaw-Ettinger
c/o Halsall Associates Limited
210 Gladstone Avenue, Suite 3001
Ottawa, Ontario

N.B. If paying by cheque, please ensure cheques are received no later than Dec. 1, 2005.

If Paying by: VISA ☐ or MASTERCARD ☐

The information below must also be completed and this form faxed to Tina Bradshaw-Ettinger at Halsall Associates Limited (613) 237-2935; (Tel: 237-2462 ext. 222)

Card #: _____Expiry Date: _____

Cardholder Name: _____

Signature: _____

For further information about this seminar, contact Tony Colantonio at (613) 956-3401.