

# GLASS CONNECTIONS CONFERENCE

The CGA 2016 Glass Connections Conference will be held September 13-14 in Ottawa, ON. This event is a highly focused educational and networking event for glaziers, architects, engineers, designers, spec writers, commercial construction contractors and building owners.



# **SEPTEMBER 14: PROGRAM AT-A-GLANCE**

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6:30am	Registration, Breakfast & Trade Show	
7:30am	Welcome & Opening Session	
7:45am	What is Happening in the International Code Arena	WELGUME REGEPTION
	Presented by: Stanley Yee, Dow Corning	SEDTEMBER 1/1
8:45am	Break	
0.000	Code Considerations in Fire Dated Class (111110)	LATT-DAX 2E22IAN
9:00am	Presented by: Tim Nass, SAFTI First	I NCATION &
10.00	Durch	REGERAVIUNG
10:00am	Break	NLOLIVATIONO
10:15am	What is LCA, EPD and PCR?	WESTIN OTTAWA
	Presented by: Mark Silverberg, Technojorm, IG	11 Colonel By Drive
11:15am	Break	Ottawa, ON K1N 9H4
11:30am	Canadian Window Wall: Design Challenges and Opportunities	RESERVATIONS
	Presented by: George Torok, C.E.T., BSSO, Morrison Hershfield	TEL: 1-800-325-3535
12:30pm	Lunch & Trade Show	Block Code: CI 13 AC
	Keynote Presentation: Promot Payment	DNLINE:
	Presented by: Glenn Ackerley, WeirFoulds, LLP	https://www.starwoodmeeting.com/B ook/CanadianGlassAssociation
1:45pm	Evolution of Glass (1 LU Hour)	
·	Presented by: Bruce Milley, Guardian Industries	
2:35pm	Break	
2:50pm	Differences Between Silicone Coatings Pros and Cons	
	Presented by: Larry Carbary, Dow Corning	

3:40pm What Have We Learned?





## **SESSION DESCRIPTIONS:**



#### WHAT IS HAPPENING IN THE INTERNATIONAL CODE ARENA Stanley yee, dow corning

Meeting specifications is necessary, but not sufficient for market leading companies. Knowledge of how international energy and building codes work can give you power to help your customer.

Specifications start from the codes, LEED and green programs are based on the codes, and your company's value-added services and market differentiation depend upon your understanding of current and future trends in international code development and implementation.

Leading companies cognizant of code trends are able to suggest the right products, help avoid or fix code compliance problems, know when competitors are not providing the correct info, and are more aware new requirements that will drive product trends. In this presentation Stanley Yee will discuss the current state of international building codes, look to the future in building code trends, and discuss how you can help influence codes and standards.



### CODE CONSIDERATIONS IN FIRE-RATED GLASS (1 LU HOUR)

#### TIM NASS, SAFTI FIRST

With the advent of new and better performing fire rated glazing products in the market today, there is much confusion on which products are appropriate for certain applications based on current code requirements. This program aims to:

- Clarify the difference between fire protective vs. fire resistive glazing products as it relates to protecting people and property;
- (2) Review updated IBC and fire and safety requirements when designing for life safety;
- (3) Identify the correct, code-approved glazing products based on the application;
- (4) Provide you with the latest fire rated glazing product information.



# WHAT ARE LCAS, EPDS, AND PCRS?

MARK SILVERBERG, TECHNOFORM IG

The glass and glazing industry is in the early stages of wrestling with the complicated landscape of sustainability related issues and challenges. Life Cycle Analyses (LCAs), Environmental Product Declarations (EPDs), and Product Category Rules (PCRs) are three pieces of the sustainability puzzle that you must be aware of (and eventually master) if you want to position your company at the forefront of sustainability in the marketplace moving forward.



#### CANADIAN WINDOW WALL: DESIGN CHALLENGES AND OPPORTUNITIES George Torok, C.E.T Morrison Hershfield

One of the defining characteristics of new high-rise residential apartment building design in Canada today is the thermally broken aluminum framed 'window wall' building envelope system. These systems have evolved over time, beginning with the humble 'punch' window as an isolated element surrounded by other cladding, extended vertically to span from floor-to-floor to eliminate the need for cladding above and below, later extended again, horizontally, to enclose the full perimeter of the building, completely eliminating the need for other cladding systems. Unlike punch windows, window walls have evolved without product-type specific performance standards. This is beginning to change with new requirements introduced in the 2015 National Building Code. This presentation will include a review of the new NBC requirements and other performance standards including limitations on window/wall ratio (can we still install floor-to-ceiling glass?), thermal bridging (packing backpans with insulation is not the answer), daylighting (maybe all that glass is not a good idea?) based on recent research and design work by Morrison Hershfield and other building science practitioners. Despite the many design challenges to be met, a well-designed, constructed and installed window system wall can still be a cost-effective enclosure for high-rise apartment buildings.



# SESSION DESCRIPTIONS (CONT.):



#### PROMPT PAYMENT Glenn Ackerley, Weirfoulds, LLP

The Expert Review of the Construction Lien Act in Ontario will lead to the first major overhaul of this significant legislation in over 30 years. Everyone involved in the construction industry will be affected by the wide-sweeping changes proposed by the expert. The talk will cover the process of consultation with the industry, the expert's key recommendations in his report to the Provincial Government, and what can be expected moving forward. If the proposed changes become law, what will they mean to you?



# EVOLUTION OF GLASS (1 LU HOUR)

BRUCE MILLEY, GUARDIAN INDUSTRIES

This one-hour interactive presentation provides an overview of the basics of glass and its manufacturing process. It discusses various types of Low-E technologies available in the market and defines relevant energy terms. The presentation also uses a case study format and shows multiple projects examples to discuss current trends in glass usage, application and important design considerations. Electronically tintable glass, also known as electrochromic (EC) glass, allows the building façade to become dynamic, changing the transmission of the sun's heat and light in response to the exterior environment and the needs of the building's occupants.



#### DIFFERENCES BETWEEN SILICONE COATINGS PROS AND CONS LARRY CARBARY, DOW CORNING

This presentation delivers an advanced engineering evaluation using nonlinear analysis of hyperelastic material that provides significant improvement to structural silicone glazing (SSG) design in high performance curtain wall systems.

Very high cladding wind pressures required in hurricane zones often result in bulky SSG profile dimensions. Architectural desire for aesthetically slender curtain wall framing sight-lines in combination with a desire to reduce aluminum usage led to optimization of silicone material geometry for better stress distribution.

To accomplish accurate simulation of predicted behavior under structural load, robust stress-strain curves of the silicone material are essential. Physical property testing was provided by the silicone manufacturer via specialized laboratory protocol. A series of rigorous curve fit techniques were then made to closely model test data in the finite element computer analysis that accounts for nonlinear strain of hyperelastic silicone.

Comparison of this advanced design technique to traditional SSG design hi-lights differences in stress distribution contours in the silicone material. Simplified structural engineering per the traditional SSG design method does not provide accurate forecasting of material and stress optimization as shown in the advanced design.

Full scale specimens subject to structural load testing were performed to verify design capacity, not only for high wind pressure values, but also for debris impact per ASTM E1886 and ASTM E1996. Also, construction of the test specimens allowed development of SSG installation techniques necessitated by the unique geometry of the silicone profile. Finally, correlation of physical test results with theoretical simulations is made so evaluation of design confidence is possible. This design technique will introduce significant engineering advancement to the curtain wall industry.



# **REGISTRATION RATES & DETAILS**

EARLY BIRD REGISTRATION: THROUGH AUGUST 14, 2016 Rates: \$175+PST/GST=\$192.50

STANDARD REGISTRATION: AUGUST 15 – SEPTEMBER 12, 2016 Rates: \$200+PST/GST=\$220.00

ONSITE REGISTRATION: Rates: \$250+PST/GST=\$275.00

REGISTER ONLINE: HTTP://TINY.CC/4FX59X

# SPONSORSHIPS & EXHIBITS

CONNECT WITH THE GLASS CONNECTIONS AUDIENCE! In addition, the conference will host a Table Top Trade Show to give manufacturers and suppliers the opportunity to showcase their products, services and upcoming technologies. Sponsorship and Opportunities Available. Please contact Bill Yanek at (785) 271-0208 or byanek@centrichq.com

