

July/Aug | 2014

- ▶ Upcoming Meetings.....1
- ▶ NCMA Solutions Centre.....1
- ▶ Update— University of Louisville Energy Study,  
and Single Wythe Masonry Walls (SWW)  
Gary Sturgeon—Guest Writer.....2
- ▶ CCMPA Mid-Year Meeting.....3
- ▶ Ontario Masonry Design Awards.....3
- ▶ University Update - Concordia.....4
- ▶ CCMPA AGM & Golf Tournament.....5

# Updates

ADDRESSING ISSUES AND CONCERNS OF THE  
CANADIAN CONCRETE MASONRY PRODUCERS  
ASSOCIATION

*Several emails will be forwarded to keep members informed of activities and important issues that are occurring. If you have some industry information you wish to share with CCMPA members, please forward it to the CCMPA Office..*

## What is CCMPA doing for you ?

### Upcoming Meetings:

#### CCMPA Meeting -Annual General Meeting & Golf 2014

Thursday, September 4th, 2014, White Oaks Resort & Peninsula Lakes Golf Course- Niagara-on-the-Lake, ON

#### NCMA Mid-Year

July 29th-August 1st 2014—Park City, Utah, USA

#### Ontario Masonry Design Awards

Saturday, November 15th 2014 - Allstream Centre, Toronto, ON

## NCMA—Solutions Centre

NCMA's online subscription service to e-TEK/e-Details/Fire Energy and Sound (FES) has recently undergone a significant upgrade to bring more information and more value to your online resources. Your clients are now one click away from accessing the complete NCMA Solutions Center containing virtually all of NCMA's resources; packaged and presented as an extension of your website and branded with your logo.

Your unique Solutions Center link is:

<http://www.Ncma-br.org>

Please have the person who administers your website update your existing link to NCMA e-TEK using the link above. Also attached to this message is the new "NCMA Solutions Center" icon that you can use in establishing this new link.

There's more. The landing page of your new Solutions Center can be personalized with the messages and information you wish to convey to those seeking information on your products. Your landing page has been prepopulated with standard boiler plate text and a logo that we had on file or obtained off your web site. If want to change your logo just send us a new one. Please refer to the attached PDF entitled, "Information Needed for Solutions Center Landing Page" for more explicit information. The first page of the PDF contains a link to a pre-recorded webinar that explains in more detail the new NCMA Solutions Center subscription service.

The new NCMA Solution Center offers instant access to 1000s of files and resources addressing all aspects of concrete masonry, SRW, ACB, and manufactured stone design, construction and promotion. Yet this is only the first of many planned upgrades and improvements to drive more traffic to your website and provide the resources your clients seek in today's 24/7, mobile-ready market. As new features are added in the coming months and years, they will be instantly available through your Solutions Center link above.

## University of Louisville Energy Study, and Single Wythe Masonry Walls (SWW)

Gary Sturgeon, B.Eng., MSc., P.Eng. (Guest Writer)

In the fall of 2012, CCMPA entered into a research partnership with the International Masonry Institute and the Masonry Contractors Association of America to examine the effects of recent changes to energy requirements under ASHRAE 90.1 and the National Energy Code of Canada (NECB) on building types oftentimes constructed using single wythe masonry exterior wall systems (SWW).

Although ASHRAE 90.1 originates in the U.S. and is required for use by designers in the U.S. to meet energy code compliance, in many jurisdictions in Canada, it also is an alternative code compliance option to the National Energy Code for Buildings.

Under the simple prescriptive compliance paths of ASHRAE 90.1 and NECB-11, single wythe masonry wall systems without insulation on their interior or exterior surfaces simply cannot attain the minimum prescribed R-value in all areas of Canada, and under this path, exterior single wythe masonry walls of standard units without insulation, or with core insulation only, simply cannot be constructed.

Dr. Mark McGinley at the University of Louisville was asked by the consortium to investigate the various options for compliance of (standard) single wythe masonry wall systems using the performance compliance path in both ASHRAE 90.1 and NECB-11. By the performance path, and by using sophisticated compliance energy software, the energy use of other parts of the building including lighting, HVAC, service water heating systems, electrical power systems, and the thermal resistance of other building envelope components (roofing and fenestration) can be traded-off against the energy efficiencies offered by the SWW systems. Where efficiencies higher than the prescribed minimums are used by other parts of the building, opaque exterior wall systems having thermal resistances lower than the minimum resistances prescribed by these codes may be used provided that the energy use of the proposed building (the building being designed to use SWW CMU) is less than the energy used by the reference building (that is designed to meet all of the prescribed minimum efficiencies for all parts of the building).

Three building archetypes were studied that typically use exterior masonry wall construction, including warehousing, supermarkets, and box retail stores. Our building models were constructed using archetype models previously defined by the U.S. Department of Energy. Our archetype models were markedly similar to the building models used in energy studies by the Standing Committee responsible for the development of the NECB.

The Louisville studies for all three archetypes are nearing completion. The CCMPA has had a major input to the direction of the study, and influence over its deliverables. Very briefly, these whole-building energy studies have shown that exterior single wythe masonry walls containing only foam core insulation can be used for all three archetypes in all areas of Canada with modest change to the efficiencies of other building elements used for heating and lighting. *We will note that the FDWR (Fenestration + Door to Wall Area Ratio), which CCMPA was instrumental in embedding in the NECB (described in the June and July, 2012 CCMPA Newsletters), is a key instrument for SWW compliance under the whole building energy compliance path.*

The details of the Louisville energy study, and the path forward, will be identified and discussed in later CCMPA Newsletters.

# CCMPA MID-YEAR MEETING

## St. John's, NF

The June 19th & 20th meetings held on the East Coast were very successful. Members who attended spoke about the great networking opportunities. We had 20 people attending including members, our new members and guests. The meeting was held in the east to recognize our four Eastern members who started collecting the Levy, Shaw Brick, CP Masonry, Casey and Rice.

We would like to take this opportunity to thank all those who attended. Information about next year's meeting location and dates will be forthcoming.



### **Ontario Masonry Design Awards (OMDA)**

Masonry in Ontario has a long history and a bright future. It has a presence in our memories and our hopes, as well as being a tangible part of our everyday lives. Masonry provides the means to create architecture that is innovative, sustainable and secure. Vision, beauty and strength: these are characteristics that radiate from the finest masonry structures. It takes talented minds and hands working in harmony to bring great buildings to life. We believe that such excellence in design and workmanship deserves to be honoured. The Ontario Masonry Design Awards have been created in recognition of the amazing work we do in this industry.

Please join us for an evening of celebration.

The second Ontario Masonry Design Awards will be held on Saturday, November 15th, 2014 at the Allstream Centre in Toronto, ON. The new website has been launched. <http://www.ontariomasonrydesignaward.com>

This event is sponsored by Ontario Masonry Contractors Association (OMCA) and Masonry Contractors of Ontario (MCAT). The lead sponsor of the event is CCMPA.





## Dr. Khaled Galal, Concordia University

Written by CMDC Staff:

David Stubbs, B.Eng, P.Eng,

Bennett Banting, B.Eng&Scty., Ph.D., E.I.T.

The Canadian Masonry Research Council, a partnership between the Canadian Concrete Masonry Producers Association (CCMPA) and the Canada Masonry Design Centre (CMDC), provides financial sponsorship and in-kind contributions for research programs across Canada. This series of articles highlights the research programs and professors who share a connection with our industry across Canada. Today we look to Dr. Khaled Galal, a Professor in the Department of Building, Civil & Environmental Engineering at Concordia University.

Dr. Galal brought his expertise in concrete and Fibre Reinforced Polymer (FRP) composites to the area of concrete block masonry while finishing a Post-Doctoral Fellowship at McMaster University working with Dr. Robert Drysdale. After joining the faculty at Concordia University in 2004, Dr. Galal continued to be a strong researcher in the areas of seismic design, retrofit and composites of structural concrete block masonry. His early work at Concordia including applying FRP fabric wraps around concrete block columns and utilizing Glass FRP bars in concrete block beams as well as out-of-plane walls. Most recently, Dr. Galal has been focused on the seismic behaviour of concrete block shear walls and the development of confined masonry boundary elements. In response to the upcoming changes to the 2014 CSA S304 masonry design standard, Dr. Galal's current work will utilize a specially designed 'boundary element' unit being developed and manufactured by CCMPA. This prototype unit, to be manufactured at the ½ scale, is essentially a modified pilaster block, custom built to facilitate the placement of special steel cages at the ends of masonry walls.

Working with CMDC technical staff and mason instructors, Dr. Galal and his team will be testing ½ scale walls and boundary elements to gather the needed technical information, necessary for academic and engineering purposes, but to also develop a feasible means for masonry contractors and masons to incorporate such a unit into loadbearing concrete block walls. Masonry boundary elements would not be expected to be used in all loadbearing applications. Rather, if a designer utilizes confined masonry boundary elements in as few as 4 walls in a masonry building, they will be able to go up to 14 stories in height without requiring prohibitive increases in block size or rebar detailing. The ongoing focus in the area of 'Ductile' masonry (as also discussed last newsletter) is meant to illustrate that layouts and detailing of typical loadbearing block structures that currently go only 2-4 stories in height can easily go over 3 times as tall in the most seismically active areas by simply adding boundary elements to a relatively small portion of the walls.

In conclusion, despite no direct funding from industry, aside from some in-kind contributions and materials from CMDC and CCMPA, Dr. Galal has carved out a name for himself in the area of masonry research and continues to push concrete block masonry forward as a modern construction material. CMDC and CCMPA technical staff look forward to the opportunity of working with Dr. Galal in the future towards the development of a formal research grant.

# CCMPA Annual General Meeting & Classic Golf Tournament

The Annual General Meeting and John Grimo Cup Golf Tournament will be held on Thursday, September 4th 2014 at the White Oaks Resort (Niagara-on-the-Lakes) and Peninsula Lakes Golf Club (Fonthill) in Ontario. Members are reminded to register before August 4th as prices increase by \$50 per person after this date.

This year, we will be holding elections for the Board and the Two Supplier representatives will be introduced to the members.

CCMPA will be updating members on all activities for 2014.

At this time we would like to thank the following members for their generous sponsorship at this year's AGM & Golf tournament:

**Brampton/Oaks** –Wine, **Blok Lok**—Opening Reception, **Essroc Italcemnti**, **Lafarge**, **Holcim**, **St. Marys**—beverage cart and bus coolers, **Permacon**—Men's and ladies golf prizes, **Shaw**— Post Dinner Reception, **Day & Campbell & Richvale**—bus transportation and **Santerra Stonecraft & CCMPA** Raffle Prize.

Hole Sponsors are: **Brampton**, **Lafarge**, **Richvale**, **Holcim**, **Solomon**, **CMDC**, **Essroc**, **St. Marys**, **Century Block**, **Walker Aggregates**, **Dixon Gordon LLP**, **Hess**, **Columbia**, **NCMA**, **Besser** and **Boehmers**. All money raised through the raffle ticket sales and live auction will be donated to Community of Hearts. Your tickets have been mailed out. Please start selling those tickets



Canadian Concrete Masonry Producers' Association proudly presents  
The Classic Golf Tournament  
presenting the John Grimo Cup

**Thursday, September 4th 2014**

Peninsula Lakes Golf Course


Golf format - best ball.

Your green fee includes:


- Golf
- Longest Drive & Closest to the Pin Competitions
- Driving Range
- Putting Green
- Halfway House beverages
- Dinner at the Resort


## SCHEDULE

Breakfast	8:00AM
Meeting	8:30 AM
Bus Transfer	12:00PM
Golf Start	1:00PM
Cocktail Reception	6:00PM
Dinner	7:00PM



## Peninsula Lakes Golf Course





*4 1/2 Star Rating - Golf Digest*  
Designed by renowned architect Rene Muylaert, Peninsula Lakes was developed under a multi-stage plan. What was once the site of a large sand and gravel quarry, soon became one of the premier golf courses in Niagara, now boasting 27 championship holes.  
Located in the heart of the Niagara Peninsula atop the escarpment, you will find impeccably groomed fairways and greens and sparkling lakes. Peninsula Lakes is a must play when visiting the Niagara region, just 40 minutes from Mississauga. This championship course is a treat for golfers of all levels, with 27 holes consisting of 3 distinct 9's (Quarry, Hillside and Orchard).

### Charity

## Community Of Hearts

is a Guelph not-for-profit corporation started by a local family and two special educators who felt compelled to create an organization to help people with disabilities continue their learning and strive towards independence.

**Individual Golfers:**  
**One-night stay, Golf & Dinner: \$600 (+ HST)**  
**Golf & Dinner only: \$350.00 (+ HST)**  
**Dinner only: \$100.00 (+HST)**  
**Please sign up by August 4th 2014 otherwise the prices increase by \$50.00**