

# GREEN SPACE

CANADA GREEN BUILDING COUNCIL

OTTAWA REGION CHAPTER NEWSLETTER

## OTTAWA REGION CHAPTER'S 5TH ANNIVERSARY

The Ottawa Region Chapter of the CaGBC has recently marked its 5th anniversary as non-profit organization. The Chapter has its roots in the passionate discussions of about thirty building industry stakeholders who were brought together early in 2003 with Vince Catalli as the catalyst. Some of the same people were also instrumental in arranging Ottawa's first LEED workshop, delivered early that spring by the USGBC to over 90 attendees at Canada Post Place. It was clear that there was keen interest in green building and that the momentum was growing.

The possibility of forming a Chapter of the CaGBC as well as Sustainable Buildings Canada was the subject of much debate amongst the founding members of our organization; however the consensus at the time was that neither body was in a position to accept chapters. As a result, the National Capital Green Building Association (NCGBA) was incorporated in August 2003 with the mission "To foster sustainable design, construction and management of buildings in the National Capital region of Canada." On October 1, 2003 the NCGBA was publicly launched at an event held jointly with Ottawa Regional Society of Architects (ORSA) as part of Architecture Week. The inaugural event, held in the National Capital Commission's Info-Centre, included a panel discussion on "What Contract Authorities Expect" with respect to Green Buildings. An interim Board of Directors was elected on October 7 and membership quickly grew in the first few months to over 100 individuals, including 11 corporate members.

Soon after its formation the NCGBA became a Member of the CaGBC as an Environmental Non-profit Organization. On August 15, 2006 the NCGBA became an Affiliated Organization of the CaGBC, essentially its local face in the National Capital Region. Part of the Affiliate Agreement was that the NCGBA would "continue to explore the implications of becoming a Chapter of the Council as the definition of Chapter evolves, and [would] actively work with CaGBC in moving towards Chapter status".

Given the the rapid growth of the CaGBC in response to the Canadian context, the shared goals of the two organizations, and the need for clarity surrounding membership, the NCGBA Board

concluded that CaGBC Chapter status was the logical next step in the local organization's evolution. At the February 2007 Annual General Meeting the NCGBA membership passed a motion that: "The NCGBA will complete arrangements/negotiations with the CaGBC to become a full chapter within the 2007 calendar year."

The new Ottawa Region Chapter (ORC) of the CaGBC was publicly launched on June 12, 2007 in conjunction with CaGBC's Annual General Meeting in Ottawa. The event included a panel discussion featuring a number of key CaGBC Board members entitled "The Green Building Imperative: Facing Change . Embracing Opportunity".

Since becoming a Chapter the outreach and membership of the organization has increased. The ORC currently has over 175 individual members and hosts more than 20 events per year. As a result of our growth, the ORC has undertaken a search for an Executive Director.

The ORC is proud of the success it has realized over the course of its five year history. The organization's achievements have been made thanks to the significant volunteer efforts of numerous individuals who have served the Board of Directors and Committees. The value brought to the membership. Sincere thanks is due to all those who have committed themselves to Eastern Ontario and Western Quebec's green building community.

(**Allison Rogers** is the Past President of the Ottawa Region Chapter and a founding member of the NCGBA. Allison works with Canada Post.)



## UPCOMING EVENTS

### December 9

ORC Networking Event. Winter Social Armada Lounge. 23 York Street, Ottawa.

### December 17 -

ORC Technical Lunch Series . Green Home Precedent

### January 21 -

ORC Technical Lunch Series.

### February 18 -

ORC Technical Lunch Series.

Please check the events calendar on the Ottawa Region Chapter pages of the CaGBC website (<http://ottawachapter.cagbc.org>) for more information about these and other events.

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# LEED BUILDING FEATURE: HALSALL & ASSOCIATES OTTAWA OFFICE

## 210 Gladstone Avenue

The construction and operation of the built environment represents a major environmental impact resulting in up to 40% of total energy use worldwide. Energy generation and consumption can contribute to reduced air and water quality, lower ozone levels, global climate change, and depletion of nonrenewable resources. One solution to these problems is to build less and to retrofit existing buildings more; a concept that corporate Canada is beginning to wake up to. In Ottawa, Halsall & Associates new office is a superb example of just how functional and sustainable renovating existing space can be.

The Ottawa office, which recently obtained LEED Platinum designation, occupies three floors of a 1970s international style building located at 210 Gladstone Avenue. Halsall Ottawa wished for an office that would express their dedication to balancing the economic, social and environmental impacts of operating a corporation', as well as to provide a hands-on learning environment for staff to learn about sustainable design through the method of 'obtaining, designing and fitting-out' their own office – truly a unique initiative within normative corporate culture. This holistic and inclusive approach educates clients, suppliers, and visitors alike on the virtues of green design by using the firm as a showcase for exemplary sustainable business practices. The Halsall team was focused on bringing together a team of collaborators who were involved with the project from inception to realization, a team that included Halsall, KWC Architects, and Gabriel MacKinnon Design.

A recent tour of the Halsall office revealed a plethora of practical design solutions that resulted in the LEED Platinum designation. Scott Demark, a project manager on the retrofit and a member of the Halsall team, enthusiastically pointed out the various materials and resources used in the design of the new office, including a conference table constructed from a beam salvaged from the Canadian Museum of Nature, and reclaimed ash mullions used in the conference room. Indeed, up to 42% of the wood used in the design of the new office was sourced from reclaimed wood. Project architect Ralph Wiesbrock of KWC Architects explains that 'material options were thoroughly researched to determine their cost, availability, and environmental impact, ultimately resulting in a furnishing and finishing strategy that employed a high level of reclaimed, recycled, and low VOC selections'. A good example of this is the use of Tandus carpet tile in place of broadloom; an easy to clean and replaceable product that contains 100 percent recycled content. An innovative product called Skyblend was used for millwork applications and contains 100 percent pre-consumer recycled wood fiber with no added Urea Formaldehyde. Additionally, reclaimed FSC doors were used throughout the space for all work surfaces.

Other key sustainable design features of the Halsall Ottawa office include waterless urinals, low-flow faucets and toilets, an operable shower, on-site bicycle shed, and corporate partnership with Vrtucar, an urban car share program that aims to improve air quality by reducing the need for Halsall members to drive their own cars from meeting to meeting during the day. Site points were

**COMPANY INFORMATION: HALSALL & ASSOCIATES IS AN INTERNATIONAL ENGINEERING FIRM THAT SPECIALIZES IN GREEN CONSULTING, EVALUATION SERVICES AND THE DESIGN AND MANAGEMENT OF NEW OR EXISTING BUILDINGS. HALSALL & ASSOCIATES HAS OFFICES IN OTTAWA, TORONTO, BURLINGTON, SUDBURY, CALGARY AND DUBAI.**

#### LEED Platinum Point Distribution:

|                        |         |
|------------------------|---------|
| Site:                  | 6.5 / 7 |
| Water:                 | 2 / 2   |
| Energy & Atmosphere:   | 9 / 12  |
| Materials & Resources: | 7 / 14  |
| Indoor Air Quality:    | 14 / 17 |
| Innovation & Design:   | 5 / 5   |



obtained for close proximity to major public transportation routes, the use of which is encouraged by providing Halsall staff with free monthly bus passes. Ralph Wiesbrock points out that providing such amenities as showers and lockers for bicyclists required an additional financial commitment on Halsall's part, but despite this, these extra's help to optimize energy performance, reduce energy consumption, and increase the use of green power by discouraging the use of motorized vehicles.

A key-contributing factor to the LEED Platinum designation of the Halsall Ottawa office was the use of efficient lighting. Lighting is such an important contributor to workplace productivity and energy efficiency that Halsall hired award-winning firm Gabriel MacKinnon Design to create a lighting strategy that was fully integrated, sustainable, and would contribute positively to productivity and well being within the office environment. Ralph Wiesbrock explains that Gabriel Mackinnon Design was invited to the table early on because the team 'recognized that reducing lighting power density while maintaining great light quality in the space was going to be critical to the success of the project and a key area we could directly impact energy consumption'.

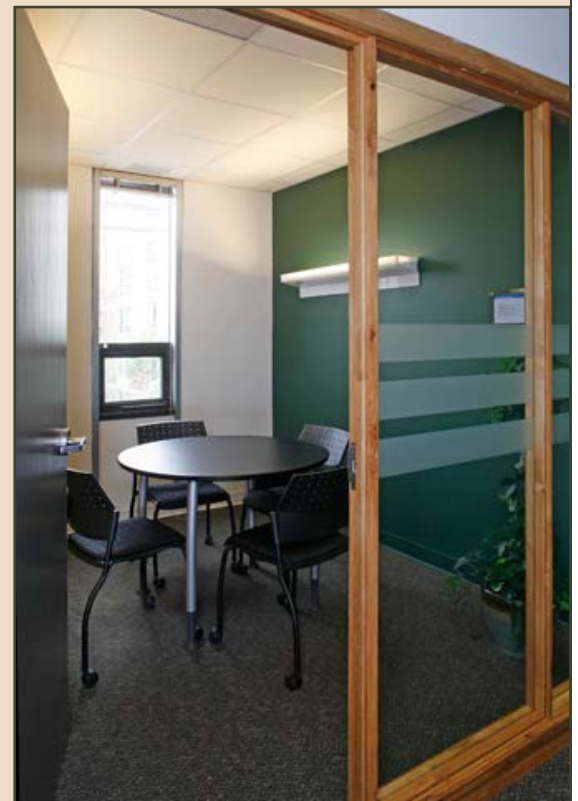
One of the easiest ways to improve lighting efficiency is to employ day lighting strategies, which optimizes natural sunlight to reduce the need for artificial light during the day. The Halsall office, which is long on the north and south and narrow on the east and west facades was originally divided into a multitude of rooms which cut off natural light to the interior of the space. The design team removed most interior walls to allow for vistas and views across the office and to outside for all occupants of the space. Gabriel-MacKinnon principal Andrew MacKinnon explains that 'light and views are key to maintaining our contact with nature in the built environment, and that there are many studies that have quantified the benefits of views and daylight in elevating productivity, decreasing absenteeism and improving performance'. To provide further light penetration within the space, the firm specified Solara skylights for the third floor, constructed of sandwiched honeycomb glazing to reduce glare on work surfaces. In addition, the designers specified 'high efficiency linear fluorescent fixtures with minimal shielding to reduce the light that is trapped in the fixture' and added dimmers to 'accommodate daylight intensity, particularly due to the high quantity of light provided by the skylights'. Andrew MacKinnon places great emphasis on the benefits of natural light and views to outside. He stresses that there is a fundamental shift in the way we view work and the working environment today, and explains that the LEED certification system provides points for day lighting and views in order to provide light to the majority of users rather than to the elite who were once a select group afforded a light filled corner office. MacKinnon deduces that this is a change in attitude rather than a change in technology, products or cost.

**RALPH WIESBROCK OF KWC ARCHITECTS GIVES THE FOLLOWING ADVICE TO BUSINESS OWNERS WHO ARE THINKING OF GOING GREEN:**

**"You need commitment from everybody around the table to capture all the benefits that green design strategies can offer. It requires cooperation and focus on the goals of the project. However, a little effort goes a long way and in the big picture, it's probably easier than you think. LEED is an excellent road map for navigating the green building landscape. If we can achieve strong results in each of the categories we are likely to see synergies between the various human and natural systems that comprise the design, construction, and operation of a building. When done well, you can expect to see those synergies result in reduced capital, operational, and occupancy costs over the life of a project. At the end of the day though, LEED is only an assessment tool and should never become the goal of the project itself. Ultimately, the point of green building/sustainable design is, and should be, to minimize our global environmental footprint."**

The new Halsall Ottawa office is a great example of how functional, light-filled and healthy a green office can be and should set a standard for years to come for sustainable interior environments in the National Capital Region.

(**Jason Bellaire**, is a graduate of Algonquin College's Interior Design program. He can be reached at [jason@jason-bellaire.com](mailto:jason@jason-bellaire.com))





## BITS AND PIECES: A GREEN BUILDING MATERIALS SERIES

“My floor is greener than yours!”

**The question of material choice I have been asked most is:** “What is the greenest flooring product?” My answer to this question presents a litmus test for all green building products. Lets approach the question using the criteria I defined in my last column:

An environmentally friendly building product should address three essential elements to make it green:

- 1)** Where does it come from? (i.e. Is it a readily renewable resource?  
Is it local? Does it have a high-recycled content?)
- 2)** How is it made? (i.e. What are the ingredients in the manufacturing process?  
Is there fair trade involved? How much energy does it take to produce?)
- 3)** How does it affect the environment after it is used? (i.e. Does the material off gas?  
What is its care and life span? Is it recyclable at the end of its initial use?)

**I live in Chelsea, which is built on a sea of clay. If I were to dig up the clay from my back yard, install it as a floor, then polish it with beeswax from my friends at Berg en Dal Honey in Wakefield, I would probably qualify in having the greenest floor. Leaving aside such pure and perfect ambitions, let’s consider more realistic possibilities for the average consumer:**

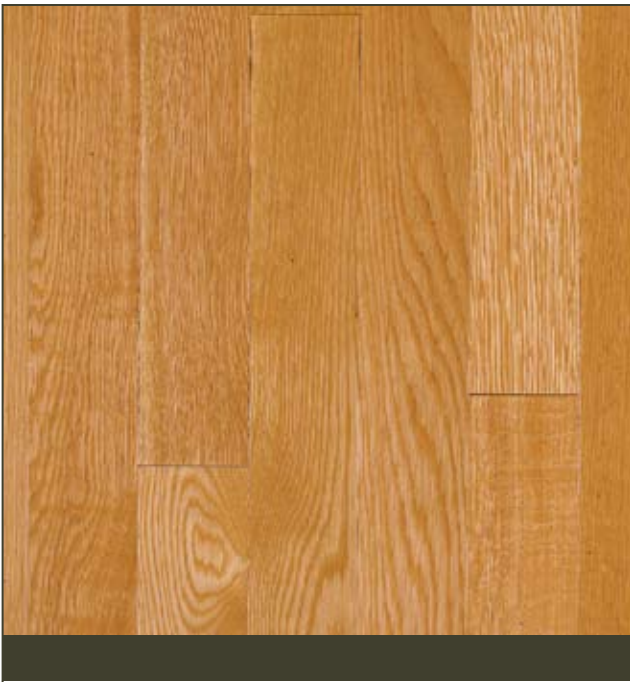
**BAMBOO:** Often thought of (and definitely marketed as) the greenest floor available, bamboo probably has the longest list of pros and cons. In order for bamboo to meet high environmental standards there are a number of hurdles to consider and overcome.

Bamboo grows incredibly fast, takes very little energy to cultivate and makes for a very hard floor; 14-17% harder than maple. If produced and harvested properly the farming of bamboo has a very low environmental impact. To achieve this, the bamboo must not be harvested before it is 7 years old and must be cut 6 to 12 inches from the ground, so that the plant can grow back without replanting. Unfortunately a proportion of bamboo flooring is harvested from virgin stands using unsustainable practices. Further, much of the farmed bamboo is harvested after only three years of growth, making for a lower quality product.

The manufacturing process that bamboo flooring also needs to be evaluated. Raw bamboo is stripped, steamed, baked and dried. It is then compressed using glues and usually prefinished. Ideally the glues and finishes used are non-toxic with a low VOC content and manufactured

in an ISO certified facility. Too often this is not the case; very few of the glues and finishes used in the process have a low VOC content and most of the work is done in ramshackle factories with no concern for the health and safety of workers. I have seen pictures of buildings in the deep forests where the workers are wearing nothing but shorts and making their own glues in a large toxic vat over open fire. (This is the \$.99 / square foot bamboo sold at Uncle Joe’s Flooring emporium.)

Bamboo floors consume a lot of energy to manufacture and transport. Given that the vast majority of bamboo products come from China, a considerable amount of energy is embodied within this flooring option.



**WOOD:** Ahh, wood. The classic and still the most popular choice. Some say you can't do much better than a solid wood product, locally farmed from sustainably managed forests with a natural oil and wax finish. In Ontario and Quebec you can now find FSC certified solid maple flooring at a fairly reasonable cost. The relatively low embodied energy in the milling process of a solid product versus that of a manufactured product adds to the benefit.

At the opposite end of the wood spectrum is an imported, clear-cut, Merbau species, covered in a heavy coating of toxic off gassing Varathane. The devastation of the Merbau forests prompted Greenpeace to produce a hefty volume dedicated to documenting their destruction. The scary fact is there are many species of endangered trees readily available at your local flooring store.

Engineered wood flooring is manufactured by bonding a veneer of solid wood on top of two to three layers of other, less valuable products. In the greenest examples these secondary layers are made of recycled or waste materials. This manufacturing method results in a more efficient use of the best / most valued wood, stretching out the resource use while still satisfying the consumer need for an abundant variety of options.

At the outset, reclaimed wood seems to be the ultimate in environmental choice. **There are two main types of reclaimed wood:**

1. Flooring made from wood reclaimed from barns or old farmhouses, planed down and reinstalled for your walking pleasure. Unfortunately, due to the intense labour involved in reclaiming the wood, and the limited supply of the product, it is an expensive option. Reclaimed wood also generally needs to be finished onsite, which is a challenge for most consumers.
2. River Run Reclaimed flooring is manufactured from logs dredged from the bottom of rivers. It's a great concept to create quality flooring and it is generally less expensive than reclaimed barn board. The argument against this practice is that no one is quite sure of the long-term impact of pulling up the silt and possible toxins from rivers such as the Ottawa and the Fraser. Impact studies will take some time to finish to before we can really know the environmental consequences.

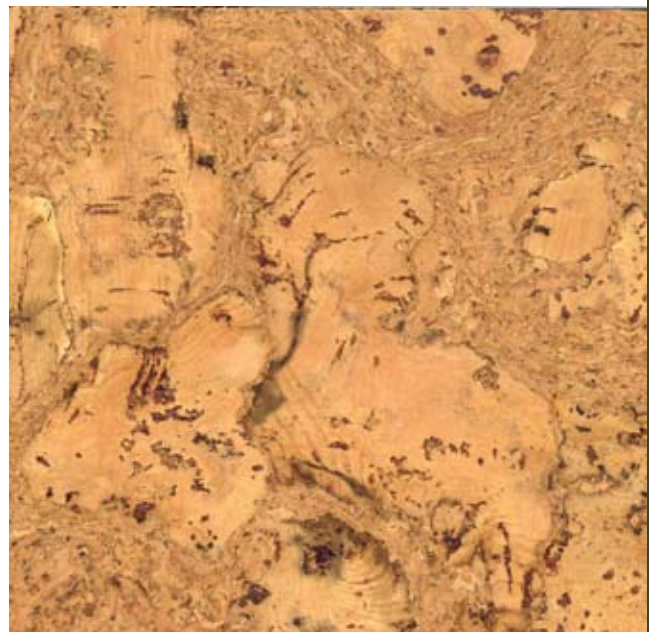
**CORK:** I'll be honest; I have a personal preference for cork. It is warm, soft and beautiful. The tree is harvested every seven years by shaving the bark from the trunk, not by cutting the whole tree down. Cork flooring is made from the scraps of the manufacturing of wine corks. In turn, pin boards and gaskets are made from the scraps of making the floors. Cork trees are highly prized and protected in Spain and Portugal. But as with Bamboo, on the flip side, cork flooring is an engineered product from abroad. What's worse, currently a large portion of cork is shipped to China for manufacturing and then hauled back to Europe and North America for sale. On top of the embedded energy debate, one needs to make sure that the cork is manufactured using low VOC glues and finishes.

**CARPET:** Carpet is not very fashionable at this time, being looked down upon as a cheap, short-term product that over time will provide a breeding ground for mold and bacteria as the toxic chemical protection wears off. But there is a bright green future in carpet, especially in commercial applications. Up and coming companies are using recycled and recyclable content. (If you haven't seen "The Corporation", Interface Carpet's Ray Anderson is a truly inspirational businessman-come-environmentalist.) Kraus is manufacturing such a product in Ontario.

In the end, making a decision on the most environmentally friendly floor will involve a lot of **təmātō - tēmātō** (i.e. tomato), **pəmātō - pēmātō** (i.e. potato). Your decision will likely come down to personal preferences and priorities. Regardless of your choice there are always trade offs.

If you are really stuck... I have an acre of clay. Send me an e-mail if you are interested...

(**John-David Hutchison**, PMP, LEED AP is a Green Building Material Consultant in Ottawa. He also makes the best veggie burger in the Outaouais. Please email John-David with comments, kudos, criticisms, and column ideas [johndavidhutchison@sympatico.ca](mailto: johndavidhutchison@sympatico.ca))



## ORC AWARD CALL FOR NOMINATIONS

The Ottawa Region Chapter (ORC) of the Canada Green Building Council recognizes excellence in fostering sustainable design, construction and/or management of buildings in Canada's National Capital Region through the Ottawa Region Chapter Recognition Award.

Awarded annually, this honour is given to an individual who has made a significant impact in advancing green buildings in the National Capital Region. Past award recipients include:

**Stephen Pope** (2005)

**Jonathan Westeinde** (2006)

**Christopher Simmonds** (2007)

Nominations for the award can be made by any current member of the ORC. Look for nomination forms on the ORC website at [www.ottawachapter.cagbc.org](http://www.ottawachapter.cagbc.org)

## ORC BOARD OF DIRECTORS CALL FOR NOMINATIONS - COMING SOON

The Ottawa Region Chapter (ORC) of the Canada Green Building Council will be putting out a Call for Nominations to the Board of Directors in the coming weeks. The ORC Board is comprised of 11 positions, all of which are approved annually by the ORC Membership at the AGM.

Director positions are open to all ORC members and the final slate is compiled by the Nominations Committee.

The ORC is a working Board and Directors are expected to lead committees or serve in executive roles within the Chapter's organizational structure.

Look for more information in the about the nomination process on the ORC website at [www.ottawachapter.cagbc.org](http://www.ottawachapter.cagbc.org)

## OTTAWA & OUTAOUAIS LEED STATISTICS

**LEED Registered Projects: 29**   **LEED Certified Buildings: 6**   **LEED Accredited Professionals: 193**

The number of LEED Registered buildings in the Ottawa Region is growing. The CaGBC ORC wishes the proponents of all registered projects greenspeed as they work toward achieving either a LEED Certified, Silver, Gold, or Platinum rating. The CaGBC ORC congratulates all LEED APs for their achievements. The CaGBC ORC Board of Directors encourages all new LEED APs to become Individual Members of the Ottawa Region Chapter of the CaGBC and to take an active role in strengthening the green building movement in our community.

**The LEED Certified Buildings directory is available at: [www.cagbc.org/leed/certified\\_buldings/index.htm](http://www.cagbc.org/leed/certified_buldings/index.htm)**

**The LEED Registered Projects directory is available at: [www.cagbc.org/leed\\_canada/registered\\_projects.php](http://www.cagbc.org/leed_canada/registered_projects.php)**

**The LEED AP directory is available at: [www.cagbc.org/leed\\_ap/directory.htm](http://www.cagbc.org/leed_ap/directory.htm)**



## GREEN\_SPACE WRITER EDITOR PHOTOGRAPHER

The Ottawa Region Chapter is seeking dedicated individuals interested in contributing to upcoming issues of Green\_Space. Please contact Chris Straka (chris@vertdesign.ca) if you have a story idea, a news item, an image that you think would be of interest to the green building community in Eastern Ontario and Western Quebec.

### MESSAGE FROM THE PRESIDENT



The future of Lansdowne Park is at a crucial juncture. On May 16th, 2008, City staff placed a hold on an International Design Competition in order to review a business consortium's proposal centred on the interests of a CFL franchise. Leaving the argument around the validity of a sustained professional football franchise aside, I suggest that the debate and consideration for this site be given to a public process. In short; the City of Ottawa should reinstate the Design Lansdowne process immediately and let the current unsolicited proposal be judged against others in an open and transparent framework.

Furthermore, the designs competing for this site must be given a set of criteria that addresses the three pillars of sustainable development; ecology, economy and society. Ottawa is blessed with a full battery of talent in the development of green buildings/communities. There is nothing to wait for. We now have the collective expertise and will to design this park with space for both public and commercial interests, while fully supporting all of the elements of sustainable development.

The development of Lansdowne Park must be considered one of public trust. This redevelopment project is one of a few legacy projects left in the city. What will its long term lasting value be to the citizens of Ottawa? I urge you to contact your city councilor to insist that the Design Lansdowne process is resumed.

In other news, please look for information on new LEED programs in the next issue of Green\_Space including; LEED for Existing Buildings, LEED for Homes and the new generation of LEED-NC. I hope to see you all at our Christmas/Holiday Social in December.

(**Robin Hutcheson** is serving his second term as President of the CaGBC ORC. He can be reached at [robinh@arborus.ca](mailto:robinh@arborus.ca))

### ORC BOARD MEMBERS

**Robin Hutcheson . President**

[robinh@arborus.ca](mailto:robinh@arborus.ca)  
(Arborus Consulting)

**Robert Smith . Vice President**

[robsmith@minto.com](mailto:robsmith@minto.com)  
(Minto)

**Alan Teramura . Secretary**

[ateramura@wmarch.ca](mailto:ateramura@wmarch.ca)  
(Watson MacEwen Architects)

**Erika Mayer . Treasurer**

[emayer@lunchboxconsulting.ca](mailto:emayer@lunchboxconsulting.ca)  
(Lunchboxconsulting)

**Allison Rogers . Past President**

[allison.rogers@canadapost.ca](mailto:allison.rogers@canadapost.ca)  
(Canada Post)

**Chris Straka . Communications**

[chris@vertdesign.ca](mailto:chris@vertdesign.ca)  
(Vert Design)

**Ann Callaghan . Development**

[ann@clwg.com](mailto:ann@clwg.com)  
(Callaghan Letellier Wiens Gibbons)

**Richard Fouchard . Education & Events**

[richard.fouchard@ottawa.ca](mailto:richard.fouchard@ottawa.ca)  
(City of Ottawa)

**Jay Moore . Education & Events**

[jay.moore@claridgehomes.com](mailto:jay.moore@claridgehomes.com)  
(Claridge Homes)

**Stephen Jones . Membership**

[sjones@cole.on.ca](mailto:sjones@cole.on.ca)  
(Cole+Associates)

**Mark Luciuk . Member at Large (CaGBC Board Liaison)**

[mlucuiuk@morrisonhershfield.com](mailto:mlucuiuk@morrisonhershfield.com)  
(Morrison Hershfield)

### CONTACT INFORMATION

**Website:** <http://ottawachapter.cagbc.org>  
<http://sectionoutaouais.cbdca.org>

**Communications:** Chris Straka, [chris@vertdesign.ca](mailto:chris@vertdesign.ca)

**Chapter Coordinator:** [ottawachapter@cagbc.org](mailto:ottawachapter@cagbc.org)

**Postal Address:** Station B, P.O. Box 723, Ottawa . ON . K1P 5P8

