



Legacy

The Newsletter of the RMC Research & Education Foundation

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Did you know:

- That time is running out to take advantage of the IRA Charitable Transfer Provision? The provision, reported on in the May 2009 edition of *Legacy*, allows individuals who are 70 1/2 and older to transfer up to \$100,000 from their IRA directly to a public charity in 2009 and exclude this distribution from income.

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From the Chairman

As you may have already heard, the RMC Research & Education Foundation is embarking on an exciting new project in conjunction with the Portland Cement Association (PCA). The two organizations are co-funding the establishment of a Concrete Sustainability Hub (CSH) at the Massachusetts Institute of Technology (MIT). Information on the new CSH and why MIT was chosen as the location are detailed on pages two and three, which includes the joint press release on the CSH and some questions and answers about the new project.

What you may not have heard is that the investment in the CSH will be significant - \$1 million a year from the Foundation (and PCA) for at least two years and likely through five years. While this investment will dip into the Foundation's existing endowment principal, the Foundation's Board of Trustees felt the potential return on investment in terms of groundbreaking research and sustainability data was worthwhile. However, in order to protect the Foundation's future, we will significantly ramp up our fundraising efforts. As a donor to the Foundation, you and/or your company demonstrated your support and may have already renewed your original pledge. If you and your company have not already done so, on behalf of the entire Board of Trustees, I ask that you recommit to the Foundation now and make another pledge or one-time contribution. We understand that times are tight and the construction industry has been harder hit than many other industries. Making the commitment now, even if your new pledge payments do not start until 2010, will ensure that the Foundation can continue the work that the industry depends on, regardless of the state of the economy.

Your past support allowed the Foundation to fund projects that are helping to lead the sustainability movement in the concrete industry. This was particularly evident at two recent industry events – NRMCA's Fall Board meeting and its ConcreteWorks, where the recently-revised *Ready Mixed Concrete Industry LEED Reference Guide* and the draft of the *Sustainable Concrete Plant Guidelines* proved immensely popular. Please see page four for more information on these projects and the Foundation's participation at those events.

The Foundation held its fall Board meeting last month where a new project on optimizing concrete mixtures was approved (please see below) and where Trustees were elected for 2010-2012 terms and where officers for 2010 were also elected. You may find that wrap-up on page four.

In December my term as Chairman of the RMC Research & Education Foundation comes to a close. This year will go down as an extraordinary one in the way our industry has weathered so many challenges and I am proud to be part of an organization dedicated to improving the concrete industry and the livelihood of the communities we serve. I'd like to thank the Board members for their service and I would particularly like to thank you, the donors, without whom I would never have had the tremendous opportunity to lead the Foundation. I hope you enjoy this edition of *Legacy*.

Regards,

Karl Watson, Jr.,
Chairman



Trustees Approve New Concrete Mixtures Project

At their fall Board meeting last month, the Foundation's Trustees approved a new project for Optimizing Concrete Mixtures for Performance and Sustainability. This project will be performed by the Lab of the National Ready Mixed Concrete Association. It is

part of a larger project being conducted by the Center for Transportation Research and Education (CTRE) at Iowa State University, which is also being funded in-part by the Federal Highway Administration. The Trustees felt this project

was important because so many specifications call for higher cementitious material contents than necessary, resulting in higher costs and an increased carbon footprint. This project, which will take two years to complete, will include guidelines for specifiers.

MIT-CSH Q & A

The RMC Research & Education Foundation addresses some crucial questions regarding this new project:

What is the Concrete Sustainability Hub? Why MIT?

The Concrete Sustainability Hub (CSH) is a research center at the Massachusetts Institute of Technology (MIT) that is being established through a joint venture between the RMC Research & Education Foundation and the Portland Cement Association (PCA). Each organization is committing \$1 million a year for the next five years with the goal of accelerating emerging breakthroughs in concrete science and engineering and transferring that science into practice. As the call for an increased emphasis on environmental issues grows louder, the concrete and cement industries are taking this opportunity to be proactive in establishing a CSH that will focus on quantifying and enhancing the sustainable nature of concrete.

The CSH is being established at MIT because it is the leading engineering school in the United States and its reputation in the areas of research and economics is second to none. Researchers from MIT's School of Engineering, School of Architecture and Planning, and the Sloan School of Management will all participate in the CSH's research activities. The research will initially be organized around three focus areas: concrete materials science, building technology and the econometrics of sustainable development. The first two projects, "Green Concrete Science," and "The Edge of Concrete,"

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Foundation, PCA Co-Fund Establishment of a Concrete Sustainability Hub at the Massachusetts Institute of Technology

The RMC Research & Education Foundation, together with the Portland Cement Association (PCA), are co-funding a Concrete Sustainability Hub (CSH) at the Massachusetts Institute of Technology (MIT). The Foundation's work in the area of sustainable development is already well-known throughout the concrete and construction communities and the additional research that will be conducted at the MIT-CSH will build upon that work.

The investment in this new project – \$1 million annually over the next five years – will be significant but worthwhile as the deliverables from the CSH will help to continue the concrete industry's aggressive pursuit of providing sustainable development solutions to the growing call for new green initiatives in all segments of industry. We appreciate your support, without which this work would not be possible and hope we can depend on your continued support of our efforts to improve our product and industry.

Below is the press release distributed on this exciting new joint venture:

Concrete Sustainability Hub Launched at MIT

Interdisciplinary collaboration will accelerate the growth of science and engineering in concrete research

CAMBRIDGE, Mass., October 5, 2009 — Concrete is the most widely used building material on the planet; however, the production of some of its

component materials accounts for up to 5 percent of global carbon dioxide emissions annually. To address the sustainability and environmental implications of the use of concrete as the backbone of our housing, schools, hospitals and other built infrastructure, including highways, tunnels, airports and rail systems, MIT today announced the creation of the Concrete Sustainability Hub, a research center established at MIT in collaboration with the Portland Cement Association (PCA) and Ready Mixed Concrete (RMC) Research & Education Foundation.

The Concrete Sustainability Hub (CSH) established with the goal of accelerating emerging breakthroughs in concrete science and engineering and transferring that science into practice, will provide \$10 million of sponsored research funding during the next five years. Researchers from MIT's School of Engineering, School of Architecture and Planning and Sloan School of Management are expected to participate in the CSH's research activities.

The launch of CSH incidentally coincides with last week's announcement that the EPA is moving to enact rules that



Concrete and cement industry groups and MIT established a new research center with a signing ceremony Oct. 5 at MIT. Sitting L to R: Julia Garbini, executive director, RMC Research & Education Foundation; Brian McCarthy, CEO and president, Portland Cement Association; Gail Powderly of MIT's Office of Sponsored Programs; Standing L to R: Professor Andrew J. Whittle, head of the MIT Department of Civil and Environmental Engineering; Professor Franz-Josef Ullm, director of the new center, the Concrete Sustainability Hub; Professor John Ochsendorf, co-director of the Concrete Sustainability Hub; and former New Hampshire governor and MIT alumnus, John Sununu. Photo / L. Barry Hetherington

Foundation, PCA Co-Fund Establishment of a Concrete Sustainability Hub at the Massachusetts Institute of Technology - continued

would curtail greenhouse gas emissions from power plants and large industrial manufacturers. If enacted, these rules would likely impose regulations on all 118 cement plants in the United States. The RMC and PCA leaders are hopeful that research results emerging from CSH projects will help ease the way for the industry to meet any changes that would be required by those new regulations.

"The concrete industry has the honor of producing the world's most favored building

material, but this honor comes with a responsibility for the industry to minimize its ecological footprint," said Julie Garbini, executive director of the RMC Research & Education Foundation.

Brian McCarthy, CEO and president of PCA, added "The MIT research team is an exceptional group of dedicated interdisciplinary faculty and the CSH will take a holistic approach to research that allows science to feed seamlessly into today's concrete applications like paving and wall systems.

For ultimately, the greatest opportunity for the building industry to reduce greenhouse gas emissions may lay in the development of more durable and energy-efficient roads, houses, and buildings."

"This collaboration is an excellent example of how MIT is addressing complex, interconnected issues of sustainability — and working to provide

Preliminary results from the first research projects being conducted at the Concrete Sustainability Hub at MIT will be included as part of NRMCA's Concrete Sustainability Conference scheduled for April 13-15, 2010 in Tempe, AZ.

solutions," said Subra Suresh, Dean of Engineering and Vanevar Bush Professor of Engineering at MIT. "Putting engineers together with economists, urban planners, architects and industry experts and practitioners on issues related to our built infrastructure will create truly novel opportunities for intervention."

CSH research will initially be organized around three focus areas: concrete materials science, building technology and the econometrics of sustainable development. The first

two projects, "Green Concrete Science," and "The Edge of Concrete: A Life-Cycle Investigation of Concrete and Concrete Structures" are already underway. Franz-Josef Ulm, the Macomber Professor in the Department of Civil and Environmental Engineering, will serve as the CSH's inaugural director and is the lead investigator on the Green Concrete

Science project. The CSH will be co-directed by John Ochsendorf, Class of 1942 Career Development Associate Professor of Building Technology in the Department of Architecture and the Department of Civil and Environmental Engineering.

"It is rare that one has an opportunity to have a positive environmental impact on the most prevalent building material in the world," said Ulm. "This means working closely with industry partners over time to ensure that our ideas and research are sustainable economically, as well as environmentally, and are a source of job creation."

MIT-CSH Q & A cont'd

A Life-Cycle Investigation of Concrete and Concrete Structures" are already underway.

Foundation Executive Director Julie Garbini and PCA President and CEO Brian McCarthy are two of the four members of the CSH's Research Advisory Committee (RAC) that will also include two representatives from MIT. The RAC will utilize the expertise of the RMCREF's Advisory Council and other industry experts to guide the CSH agenda and research deliverables.

What will this mean for the Foundation?

We expect the work accomplished at MIT will provide extremely high quality deliverables and that work will be closely monitored and distributed as it becomes available. In light of the significant investment, funding for new projects over the next five years may be limited. However, the Foundation will aggressively work to rebuild the endowment with a revitalized fundraising campaign. The relationships with MIT and the other universities with whom we already collaborate are also expected to leverage outside dollars for industry research.

Will other Foundation programs be affected?

No. All of the projects that the Foundation has committed to funding already will not be affected. We will continue to roll out those projects as they are completed and we will continue to market and distribute all of our deliverables, many of which are available now from the Foundation's website.

Coming Down the Pike – A Calendar of Upcoming Programs and Releases

- * Sustainable Concrete Plant Guidelines – Fall 2009
- * SCC Formwork Pressure Study – Fall 2009
- * Plant Manager Certification Course – December 8-11, Silver Spring, MD – visit www.nrmca.org
- * World of Concrete Show – February 2-5, 2010, Las Vegas, NV – Foundation to distribute "Proud Donor" Placards to exhibiting donors
- * Updated Preliminary Data for the Fuel Consumption/Emissions Study – Now Available, Full Report expected Spring 2010
- * NRMCA's Annual Convention – March 14-16, 2010, Austin, TX – Foundation to have booth display

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Mission:
To support research
and educational pro-
grams that will in-
crease professionalism
and quality in the
concrete industry



Revised LEED Guide, Sustainable Concrete Plant Guidelines in High Demand at Industry Events

The RMC Research & Education Foundation began this fall with the release of the Third Edition of the popular *Ready Mixed Concrete Industry LEED Reference Guide*, which includes information on LEED 2009 for New Construction and Major Renovations. As expected, the new version is as popular as previous editions and copies at both NRMCA's Fall Board of Directors meeting and the ConcreteWorks conference disappeared from the Foundation's booth before the end of each event. Hits to the Foundation's website also increased as people took advantage of being able to download the LEED Guide from there as well.

Although the final version will be released later this fall, the RMC Research & Education Foundation unveiled a draft version of its *Sustainable Concrete Plant Guidelines* at ConcreteWorks last month to rave reviews. Copies of the draft version flew off the shelves of the Foundation's booth and the presentation on the Guidelines was very well received. Many are eagerly anticipating the release of the final version, which is expected this fall.

Participants at both events received an update on Foundation programs, including the new Concrete Sustainability Hub at MIT (please see pages two and three).

While the Foundation did not hold its annual fundraising golf tournament this year at ConcreteWorks, a portion of the registration fee for the golf outing held at the Indianapolis Speedway was donated to the Foundation. In addition, the Foundation also appreciates the support of participants from ConcreteWorks from the dinner on the last Monday night.

The Foundation will explore whether or not to plan for a fundraising golf tournament for the 2010 ConcreteWorks. If you have input you would like to share, such as if your company would be willing to be a sponsor of the event, please contact Jennifer LeFevre.

2010 CIM Auction Planned for February

The 2010 Auction to benefit the Concrete Industry Management (CIM) Program's National Steering Committee will take place on Thursday, February 4, 2010 at the World of Concrete Show in Las Vegas. To learn more or to donate an item, please visit <http://www.concretedegree.com/auction/index.html>.



New Trustees, Officers Elected for 2010

At the Fall Board of Trustees meeting, the Foundation's Board elected seven Trustees to fill spots for 2010 - 2012 terms, five of whom are current Trustees. The current Trustees who were re-elected include Thompson Baker II of Vulcan, Henry Batten of Concrete Supply, Norman Nelson of Lyman-Richey (Ash Grove), James Purcell of Lehigh Hanson, and William Wagner of Lafarge. The two new Trustees elected to the Board are Silvio Panseri

of Essroc Italcementi Group and Mark Stiles of Trinity Industries/Transit Mix.

The officers elected for the 2010 term are as follows: Secretary/Treasurer - Michael Harlan of U.S. Concrete; Vice Chairman - Scott Parson of Staker-Parson, an Oldcastle Materials Company; and Chairman - James Repman of Cal-Portland.

Two long-time Trustees will be retiring from the Board as of the end of this year, both of

whom are past chairmen of the Foundation. They are Eugene Martineau, formerly of U.S. Concrete and who is now Executive Director of the Concrete Industry Management Program National Steering Committee and George Gregory with Essroc Italcementi Group. Martineau served as chairman of the Foundation in 2005 and Gregory served as chairman in 2008. The Foundation would like to thank both gentlemen for their service.