

The Masonry Society

Sustainability E-News

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SPONSORED EDITION

From the Editor

The term resiliency is one that reaches beyond building construction into infrastructure and public policy and planning. At its heart is the concept of not only providing life safety in response to whatever Mother Nature dishes out, but also constructing buildings and infrastructure that remain useable after such events. For buildings one valuable tool is to provide passive means of heating and cooling, rather than relying solely on mechanical equipment that requires power. Thermal mass, inherent in masonry construction, is key to passive designs. This edition of *Sustainability E-News* features several articles on the benefits of and strategies for incorporating thermal mass in sustainable building designs. Utilizing masonry provides not only thermal mass, but also tough, durable, resilient designs.

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NOTE: Inclusion in this newsletter is not an endorsement of the products and materials featured, nor have these products been evaluated by TMS or the editor. Furthermore, the views expressed in the articles featured are those of the article authors.

GREEN BUILDING NEWS

Below you will find a great article by Maria Viteri that explains in clear terms the "what" and "how" of thermal mass. ~Tina

Interior Thermal Mass: Designing a High Performance Interior Environment

IMIWEB.ORG

Why do we need interior thermal mass if we've already insulated a building? This commonly asked question is best answered by explaining that insulation works to prevent thermal loss through the enclosure but insulation does not work to recover excess heat that results from people, lighting, and equipment that occupy the interior of the building. Thermal mass, on the other hands, works in conjunction with insulation and reduces thermal transfer through conduction and heat absorption characteristics that most benefits the interior. Read more [here](#).

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Click on the links below to learn more about each of these organizations who have graciously sponsored this E-Newsletter. The Sponsors designated with an Asterisk(*) are also TMS Members at the following levels:

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Thermal Mass Solutions - Masonry and Net Zero Energy Design

STRUCTURE MAGAZINE

The Jess S. Jackson Sustainable Winery building (JSWB) project team, led by Siegel and Strain Architects, set out to design a Net Zero Energy, LEED Platinum building, at the University of California, Davis, where summer temperatures exceed one hundred degrees on a regular basis. Concrete masonry, not only saved the day, but it opened the door for IDA Structural Engineers of Oakland, CA to take a more active role in energy optimization at the earliest stages of a project. Read [the article](#).

Thermal Mass Works

DYNAMICCSOFMASONRY.COM

Research by Pacific Northwest National Laboratories proves the benefits of CMU's thermal mass as compared to wood in reducing energy use and cost in 2-story residential structures in climate zones 3 and 4. [This article](#) explores the research and benefits of concrete masonry versus wood construction.

Rebirth of Single Wythe

DYNAMICCSOFMASONRY.COM

More stringent energy codes don't rule out single wythe masonry wall systems. Understanding allowable alternate paths to compliance and/or incorporating advanced-technology wall components might be all it takes to achieve design and budget objectives according to [this article](#) in SMART dynamics of masonry magazine.

The Building Resilience Rating Tool, Assisting Insurance Policies

EDGE ENVIRONMENT (Australia)

To encourage policyholders to understand and explore the risks and vulnerabilities of their property, the Insurance Council of Australia is working with Edge Environment to develop the Building Resilience Tool (BRR). Recently, Lloyds, one of the world's biggest insurers, stated that "climate change projection based approaches are required for those making long-term commitments, for example, insuring or investing in infrastructure." [Read more](#).

What Are We Learning from Benchmarking Our Buildings?

STEVEN WINTER ASSOCIATES (SWA)

With 14 cities, 2 states, and 1 county now enforcing energy benchmarking and transparency policies, it is a critical time to determine how this data can be analyzed, and what the impact of the policies themselves have on building energy usage, greenhouse gas emissions, and the local economies. SWA worked with the U.S. Department of Energy (DOE) and Navigant Consulting teams to find out what we are learning from our benchmarking programs. [Read more](#).

PRODUCT NEWS

The second article below is one that was featured several years ago, but discusses a topic (fly ash in masonry grout) that is gaining traction. I thought it was a useful reminder in light of the research featured in the other article below. ~Tina

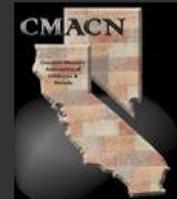
Quantifying Pumice as SCM Replacement for Fly Ash in Concrete

AGGREGATE RESEARCH

Over a two-year period (2012-2014), the Center for Transportation Research at the University of Texas-Austin tested and quantified the

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Platinum Level



Concrete Masonry Association of California & Nevada





Western States Clay Products Association

Gold Level



Masonry Institute of America



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performance of eight commercially available natural pozzolans to determine a viable replacement for fly ash in concrete. Read more [here](#).

High Volume Fly Ash Masonry Grout

STRUCTURE MAGAZINE

[This article](#) reviews research and testing by Brigham Young University on the benefits of using fly ash in grout for masonry.

GREEN BUSINESS NEWS

From Waste to Riches

WBCSD.ORG

In collaboration with US Business Council for Sustainable Development, World Business Council for Sustainable Development (WBCSD) and Corporate Eco Forum, over 20 US companies recently launched the [US Materials Marketplace](#), an online marketplace allowing companies to exchange underutilized materials, turning one company's waste into raw material for the other. To learn more, [click here](#).

Educational Opportunities

Save the Dates

The 2015 TMS Annual Meeting will be held at the Sheraton City Centre Hotel October 15-20, 2015, in Indianapolis, IN. Registration will open in August. Plan on joining us for committee meetings, educational opportunities, and networking while enjoying social activities in the Hoosier State.

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Silver Level



Bronze Level

