The Masonry Society

Sustainability E-News

Comparing Performance

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From The Editor

As many of us continue to work in a 'virtual' environment, online educational offerings are more plentiful than ever. I highly recommend a recent webinar I attended given by the MIT Concrete Sustainability Hub (MIT CSHub). The presentation, "Challenges and Opportunities of Using EPDs in Environmental Comparisons of Concrete," gave a great explanation of why EPDs cannot and should not be compared. The fact that most product category rules (PCR) for EPDs state that comparisons are not allowed has not stopped their comparison. In fact, many popular tools are promoted for use for this very purpose. But as the first 25 minutes of this recording explained, there are many issues that make these apples-to-oranges type comparisons.

On a related note, I had an opportunity to be a part of a new *Masonry Principles* podcast series. I was honored to be asked to talk about sustainability and masonry. Check it out here.

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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

GSA Procurement Letter on low embodied energy and carbon materials released

GSA.GOV

Green Building Advisory Committee released a February 2021 Procurement Advice Letter based on the work of its Embodied Energy Task Group (EETG). This task group was formed to identify opportunities to study the energy, pollution, and cost savings that may be achieved by reducing the embodied energy and carbon in federal building construction and renovation. Having identified the potential savings to be significant, the EETG has produced relevant and readily adoptable procurement recommendations that can help encourage the specification and adoption of low embodied energy and low embodied carbon materials.

Making sense of commonly used terms for emissions goals

CNET

Companies may use a variety of terms to describe their carbon emissions goals, with some aiming for "carbon-neutral" -- emitting and removing equal amounts of carbon into the atmosphere -- and others working to be "carbon-negative," meaning they plan to remove more carbon dioxide from the atmosphere than they emit. Confusingly, companies such as H&M and Ikea use the term "climate-positive" to describe their own emissions goals, but the term means the same as carbon-negative. This article aims to help clear the air.

Lessons in Adaptive Reuse

THE CONSTRUCTION SPECIFIER

Adaptive reuse has been a long-term success story in many North American cities. The process involves maximizing the use of existing buildings and materials and restoring the urban and architectural fabric to revitalize cities and places. To successfully execute a repurposing project, it can be helpful to review recent changes in the approach, early influences, and considerations for evaluating potential candidates. Read more.

CODES and STANDARDS NEWS

The article below from the USGBC discusses how a building can be designed to perform better when the power goes out. This better performance can be achieved "through a combination of design measures that could include careful building orientation, a highly insulated building envelope, natural ventilation, cooling-load-avoidance measures, passive solar heating, and **integration of thermal mass**" [emphasis mine]. ~Tina

Passive survivability: How LEED helps when the power goes out

USGBC

The power outages in Texas illustrate the importance of resilience strategies for buildings. Buildings can enhance resilience in several ways. Buildings themselves can be designed and operated to be resilient to impacts to the power and water systems. This starts with resilience planning to guide project teams to design and operate spaces that are better able to respond and adapt to these situations as they occur. A critical part of that planning includes passive survivability. When a power outage or interruption in fuel supply occurs, most mechanical heating and cooling can no longer operate. The aim of passive survivability is to be prepared for when such an event may occur and to maintain safe indoor temperatures—and where possible, potable water. Read more here.

New Seattle building code eliminates fossil fuels for most space and water heating

SMART CITIES DIVE

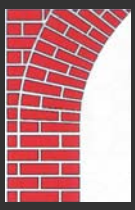
Seattle's new energy code goes into effect this month with quite a few new sustainable requirements for new construction. The code, which applies to new commercial buildings and large multi-family buildings, will eliminate fossil fuels from most space and water heating, increase energy efficiency and increase access to onsite renewables. Read more.

Report on efforts to harmonize Canadian-American masonry design standards

NCMA.ORG

Concrete Masonry Association of California & Nevada ***

Mason Contractors Association of America **



Western States Clay Products Association ***

Gold Level

Masonry Institute of America ***

Portland Cement Association **

Silver Level

Spec Mix **

Bronze Level

ACME Brick ***

Cast Stone Institute ***

The first report from a joint effort between Canadian and American designers and trade groups focused on harmonizing masonry design standards is now available. The executive summary identifies potential changes to the Canadian design standards for the harmonization efforts. Similar reports on changes to US standards will be published in the next few months. Read more.

GREEN PRODUCT NEWS

EPDs and carbon sequestration are hot topics in the concrete and concrete masonry industries. Check out the links below for the latest news. ~Tina

Challenges and opportunities of using EPDs in environmental performance comparisons of concrete

MIT CSHUB

While measuring the environmental impacts of construction materials has evolved rapidly in recent years, comparing the impacts of different products using trusted and transparent information has remained a challenge. To conduct such comparisons, many states have explored legislation that would promote the use of environmental product declarations (EPDs) when making building material procurement decisions. EPDs, however, were originally developed as trusted and verified reporting mechanisms and were not intended for comparative assessments required to support procurement decisions. In particular, selecting a lower-impact alternative remains a challenge because of issues around functional equivalency, data quality, and methodological choices. View the recording.

Foundation approves grant for CO2 sequestration research

NCMA

In 2020, preliminary research was conducted that indicated testing protocols can be established that accurately measure carbon dioxide uptake in CMU after production and that the amount sequestered by CMU may be significantly higher than previously thought. This project, recently approved by the NCMA Foundation, is to expand on this research to further develop CO2 sequestration testing protocols that allow producers to accurately and uniformly measure CO2 uptake and to better quantify sequestration amounts by testing products from producers around the country.

Doubling concrete's carbon uptake

PURDUE.EDU

A team of researchers at Purdue University led by professor Marian Velay Lizancos has discovered that adding only small amounts of nano-titanium dioxide nearly doubles concrete's absorption of carbon dioxide. Read more.

UCLA-incubated startup picks a new name

CONCRETE PRODUCTS

CO2Concrete, a startup spun out of UCLA's Institute for Carbon Management, has changed its name to CarbonBuilt to better reflect its mission to store carbon dioxide in concrete to drive gigaton-scale emissions reductions. The company's curing process allows it to sequester carbon dioxide contained within dilute flue gas streams. Read more.

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