



nerej

WS Development and Sublime Systems celebrate low-carbon cement work

October 18, 2024 - Construction Design & Engineering



Boston, MA On October 1st leaders dedicated to advancing low-carbon cement as a tool for reducing the built environment’s massive share of global CO2 emissions (about 40%) gathered to celebrate the first commercial installations of Sublime Systems’ technology, in the city’s largest net-zero-carbon office building, recently completed by WS Development. Local, state, and federal officials convened with executives representing union labor and the construction industry at One Boston Wharf, to unveil the first sidewalk made with low-carbon Sublime Cement, following an earlier integration in the building’s interior concrete lobby.

“In the finest revolutionary traditions of our fair city, we say: a step on our floor made of Sublime Cement is a step toward our carbon-free future, and a step heard round the world,” said WS Development SVP of development Yanni Tsipis as he kicked off and introduced the lineup of

speakers.

In a transaction announced in 2021, Amazon has leased the entirety of the office space within One Boston Wharf, creating a total footprint of over 1 million s/f within WS Development's 33-acre Seaport development. One Boston Wharf is reducing greenhouse gas emissions by more than 90% below code requirements and eliminating 5.1 million pounds of CO2 emissions annually.

Founded in 2020, Sublime Systems is commercializing breakthrough, "true zero" manufacturing technology that avoids both the mineral and fossil fuel emission sources characteristic of portland cement. Its electrochemical process runs at near-ambient temperature and uses clean electricity and carbon-free inputs to produce reactive cementitious ingredients that are highly engineered for an optimally performing cement in concrete.

The speakers at the ribbon cutting collectively addressed the need for low-carbon cement in fighting the climate crisis; how the local, state, and federal government can accelerate this transition as they collectively consume more than 50% of the cement in the U.S.; the climate tech leadership of Boston and Massachusetts; the early movers in the construction industry; the role of union labor in supporting the new clean economy; and the policy ambitions of the Biden-Harris Administration enabling the pursuit of these broad ambitions in tandem.

Highlights of the day's remarks include:

"Low-carbon cement is going to help us decarbonize our global economy, and today, as we have so many times, the transformation is beginning right here in Massachusetts," said Massachusetts Governor Maura Healey. "This is an example of Massachusetts's leadership once again. Many months ago, in my State of the State Address, I held up and pointed to Sublime Systems as something special that we have going on here in Massachusetts."

"The GSA has a big role to play in this because we are the primary buyers of goods and services for the federal government," said Robin Carnahan, Administrator of U.S. General Services Administration (GSA), the largest civilian real estate landlord in the federal government. "We also have money and momentum at the same time. What's been the most gratifying in all of this is that the private sector — as we have asked for lower carbon materials — they've said, 'sure we can do that.' It is an amazing response."

"President Biden and Vice President Harris charged us to use the full power of the federal footprint to catalyze change and tackle climate change," said U.S. Chief Sustainability Officer Andrew Mayock with the White House Council on Environmental Quality. "They charged us to work in a really important framework — through a government-enabled, private-sector-led approach. Three years ago for the Biden-Harris Administration, that was a plan. Today that's a reality."

"I have never heard in my life people clapping for cement, and this is what we're witnessing today.

You might ask why I've had such an enthusiastic response in this moment. It's because Sublime is building in Holyoke, Mass. a manufacturing facility. This is the ideal explanation for federal investment," said U.S. Congressman Richard Neal, who represents Massachusetts's 1st congressional district comprising Holyoke. Sublime's future first commercial manufacturing plant here has been selected for an up-to \$87 million investment from the U.S. Department of Energy's Office of Clean Energy Demonstrations.

U.S. Congresswoman Ayanna Pressley, representing Massachusetts's 7th congressional district comprising Sublime's Somerville headquarters, emphasized the need to center environmental justice in climate innovation and policy, stating "The Justice40 policies are so essential to our future. I am excited that we get to celebrate today's win as we continue to combat climate change."

"The days of choosing materials that could cause environmental harm are thankfully over," said Jonathan Gulliver, Highway Administrator for the Massachusetts Department of Transportation (MassDOT). "Sublime has been an incredible partner in this effort, and I am confident that the work they have been doing, that you can see here today, is going to lead to the widespread use of concrete that we can all be proud of."

"I often describe Boston as the place in the world where people come from all over with the big ideas that reshape history. But the act of getting from the idea relies not just on the brilliance and grit of the innovators who find ways to get the concept ready for market, but Boston Sand and Gravel; Turner Construction; WS Development; state, city, and federal partners, to make it into something that then becomes taken for granted as part of our daily lives," said City of Boston Mayor Michelle Wu.

"The mission today is to build our buildings as sustainable and as decarbonized as you possibly can and run at that with tremendous passion," said Kent Kunkel, Vice President and General Manager of Turner Boston, the general contractor on the One Boston Wharf project. "We can't do that on our own. I want to thank all of the partners on that journey, we are going to keep pushing on that journey, and I hope everyone joins us."

"Concrete is one of most versatile construction materials available, and the Boston market is ready to make it one of the most sustainable materials used. We look forward to pouring thousands and thousands of more yards of sustainable concrete like the one you see here before you today," said Jim Carreira, Boston Sand and Gravel Technical Director, Sublime's early ready-mix concrete deployment partner.

"My challenge to each of us is to think about what skills and resources you have to offer, then find collaborators and lean as a problem solver to help move a collective effort forward," said Don Davies, a structural engineering leader, co-founder of Davies-Crooks Associates, and founding member of decarbonization organizations Carbon Leadership Forum and Building Transparency.

"The Department of Energy right now is deploying \$1.6 billion specifically to dramatically reduce emissions from cement making, while creating good union jobs, while investing in hard-hit

communities. And the Sublime project that we are celebrating today is really emblematic of that opportunity. A project that will virtually eliminate climate pollution from this ancient material,” said Ben Beachy, Special Assistant to the President for Climate Policy, Industrial Sector and Community Investment.

“American workers are the backbone of our economy and will be a key part of effectively deploying new clean technologies like Sublime’s. A trained workforce is critical for success, and the Steelworkers is proud to partner in this area and sees a bright future for the expansion of the unionized workforce needed to bring low-carbon cement to market,” said Emil Ramirez, International Vice President and Chair of the cement council at the United Steelworkers union, who Sublime has partnered with for its Holyoke plant.

“We all want to be in this beautiful building, and we all want to be in a future that is just and that is clean and that is sustainable,” said Sublime Systems CEO and Co-Founder Dr. Leah Ellis. “This commercial project here in Seaport has been essential in driving the volume and demand that will bring us to market. Following this deployment earlier this year, we’ve gotten partnerships from Vineyard Wind, from Microsoft, and from two of the largest cement companies in the world, CRH and Holcim, who recently invested \$75 million into Sublime Systems to further scale up this technology.”

“The Sublime story as has been told is the perfect example of what the Biden-Harris Administration’s Inflation Reduction Act was designed to do. DOE Industrial Demonstrations awards are designed to kickstart decarbonization of heavy industry across our country, and now we see the private sector crowding in private capital,” said Deputy Director White House Office of Science and Technology Policy Justina Gallegos.

New England Real Estate Journal - 17 Accord Park Drive #207, Norwell MA 02061 - (781) 878-4540