

GreenSource

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Sustainable Design Gets Moving

BOSTON'S GREEN
REVOLUTION

GET READY FOR
THE NEW LEED

GARBAGE VALUE
BOOMS AS REFUSE
STACKS UP



McGraw Hill
CONSTRUCTION

Boston's Green

HOW AN OLD CITY LEARNS NEW SUSTAINABLE TRICKS

MICHAEL PRAGER

SAYING "GREEN" in a Boston version of a word-association game used to yield the reply "monstah," as in the locals' affectionate name for Fenway Park's imposing left-field wall.

Increasingly, though, the response could be "building," as the region's sustainable footprint mushrooms, triggered by academic innovation, a competitive real-estate market influenced by nonprofit institutions, and politicians eager to win green credibility. The U.S. Green Building Council's (USGBC) Greenbuild conference—scheduled to take place in Boston November 19 to 21—will bring even greater attention to the city's green initiatives.

"I would say [interest in sustainability] is explosive," asserts Barbra Batshalom, executive director of the Green Roundtable, an educational and advocacy organization, and regional affiliate of the Green Building Council. "What makes Boston stand out," Batshalom continues, "is a tidal wave of existing buildings going green. Hundreds of thousands of square feet of building space are being certified as LEED-EB." That figure actually exceeded a million in May, with the first certification of a private office building in the city, One Beacon Street, a 35-year-old building owned by Beacon Capital Partners,



The Genzyme Center, the biotech giant in Cambridge's Kendall Square, was an opening volley in Boston's green revolution, earning a LEED Platinum rating in 2003.

ANTON GRASSI PHOTOGRAPHY (THIS PAGE, OPPOSITE TOP); JOHN HORNER PHOTOGRAPHY (OPPOSITE BOTTOM)

Revolution



which achieved LEED Silver. Add to that initiative the Equity Office Properties announcement this summer to apply LEED standards to all 11 million square feet of office space it occupies in Greater Boston over the next three or four years. "We're doing this from a social responsibility perspective," says Greg Shay, president of Equity Office's Boston region, "but it's also become necessary to maintain tenants. It's gotten to the point where not taking action is foolish."

Boston will have to excel at upgrading existing buildings to green standards if it is to make much progress toward conservation and sustainability since, as one of the nation's oldest cities, it's largely built. "Our biggest challenge is we have an enormously old infrastructure," says Peter Kuttner, FAIA, president of Cambridge Seven Associates. "You have to be much more creative in a tight urban environment."

Kuttner works mostly with institutional clients, who constitute an unusually rich segment not only of the region's building market but of its green building movement. "They're taking the lead, even though in many ways they're least able to afford it." Cambridge Seven Associates designed the Boston Children's Museum's green makeover, which in May was cited among Boston's 12 greenest buildings by the city and the American Institute of Architects (see case studies, page 122).



Genzyme's light-filled interiors inspire Boston businesses to go green (top). Designed by Office dA and Burt Hill, MacCallen condos rises 11 stories in downtown Boston (bottom).



from Genzyme's experience. "And now in Boston, with the requirement that certain projects need to be LEED-certified, the bar has been raised greatly." Meanwhile, Behnisch, Behnisch & Partners has been hired to design the four-building, 589,000-square-foot Allston Science Complex, a cornerstone of what may be the region's next green jewel, Harvard's expansion into 200 acres across the Charles River into Boston. It already boasts one unique distinction: In September 2007, Harvard committed legally with the state to cap the greenhouse-gas emissions from the new buildings. Leith Sharp, chief of Harvard's Green Building Initiative, says the university was planning to achieve even greater reductions than it committed to, making agreement easy. According to Sharp, Harvard has two-dozen professionals working on its greening ventures, which number about 50 buildings right now, half of them renovations. Its renovation of 46 Blackstone Street from a former municipal power plant into a university operations complex was awarded LEED Platinum status in April 2007.

The green movement isn't just remaking the area's campuses; it's remaking their architecture faculties.



Once completed, the Allston Science Complex will represent a new green front for Harvard, while providing a crucial aesthetic stepping-stone in the tradition-bound city of Boston.

A striking glassed-in two-story bridge, full of functioning offices, connects the brand-new studio wing of the WGBH building with an older, adapted building across the street.

COURTESY BEHNISCH, BEHNISCH & PARTNERS (THIS PAGE TOP); JEFF GOLDBERG/ESTO (THIS PAGE BOTTOM); WILLARD TRAUB (OPPOSITE TOP); BLIND DOG PHOTO (OPPOSITE BOTTOM)



Maryann Thompson of Maryann Thompson Architects of Cambridge, a longtime sustainability proponent, practically gushed the day after the Harvard Graduate School of Design added a sustainability studio to its core sequence. "John Hong, a partner at Single Speed Design [of Cambridge], said 'Let's make this studio really utopic. It's like, we don't want to have a half-assed attempt, like a hybrid car. [That's] not really solving the problem, because the real problem is the car. What's amazing is that this was said at a Harvard faculty meeting!'" Thompson says.

Indeed, it's as if the thinking of Bostonians, who so closely identify with their sports teams, was set free when the Patriots went from worst to first in football, and then even the Red Sox won a couple of championships after an 86-year drought. The metropolitan region has more than 60 LEED-certified projects, with hundreds more registered.

David Brewster, president and cofounder of EnerNOC, a Boston-based leader in the field of demand-response

management, points out that innovation isn't springing only from architects. "Obviously, [Boston is] a community that has a lot of smart programmers and passionate people who want to change the world, and that's really what we're talking about," says Brewster, whose company contracts with large-building owners to lower their electrical use during peak periods, and then sells the electrical-demand savings to utilities. It also offers continuous commissioning services.

The consensus around town is that momentum for green building is all but unstoppable, but few see the beginnings of utopia. Land-use laws, especially as pursued by sometimes fractious cities and towns, are the next hurdle. "I think right now we really have to focus on the smart-growth aspects to include transportation. It's not so much a green-building issue as how to maximize location and minimize commute times," Bowles says.

Thompson goes even further: "I think what needs to happen is a reexamination of all these building laws. They need to be looked at from a green perspective, because some of them are holding us back." She cited density regulations that push commuters further out into suburbs, and residential-only zoning that requires them to leave home to work.

Even with such potential obstacles, Batshalom, of the Green Roundtable, can't help but be effusive: "As a city, we're in a very good place, but it's nothing like where we'll be in the next five years. It's not like we're pulling an anchor. We're running to keep up." <<

Michael Prager was a daily newspaper journalist for 28 years. He left the *Boston Globe* last year to pursue his interest in sustainability and green technology. His blog is at michaelprager.com.

Icon Architecture's Robert White Environmental Conservation Center is one of Boston's greenest buildings, with photovoltaic shingles, geothermal heating, and wood from sustainably harvested forests.

Cambridge's City Hall Annex was the first municipal building in the Boston area to achieve LEED certification. The renovation preserved the spirit of the past, while looking toward a greener future.