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Sustainable and Historic: The ultimate blend of old and new for green buildings

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In Boston, green building is no longer synonymous solely with new construction; in fact, several historic properties have been converted into cutting-edge Leadership in Energy and Environmental Design (LEED) facilities while still maintaining the important qualities that have made them familiar landmarks of the city's landscape.

This year, Boston is the proud host of the US Green Building Council's Greenbuild Conference and Expo which will draw over 25,000 attendees who will be looking to find out more about Boston's cutting edge green design and construction. In addition to taking part in more than three days of extensive educational programming, workshops, a vast exhibition floor and ample networking opportunities, one of the best opportunities to learn about what Boston has to offer is to attend a green building tour to see the buildings that are paving the way for the green revolution - including those that have been reborn from their historical pasts as cutting edge LEED facilities.

In Cambridge, Mass., two buildings have been recognized by the U.S. Green Building Council (USGBC) for their green attributes: the LEED Gold Cambridge City Hall Annex and the LEED Platinum Harvard University Blackstone Office complex. The City Hall Annex was designed by HKT Architects of Somerville, Mass. to use "intelligent" lighting that automatically adjusts to daylight levels; solar roof panels that generate approximately 10% of the building's electricity; and glazed windows that minimize heat loss and gain. Additionally, geothermal well water drives the heating and cooling system, using less energy than traditional systems to regulate temperatures in the building. The project, which was overseen by construction manager Consigli Construction Co., Inc., was also a leader in construction waste recycling.

A short walk away from City Hall Annex is the Harvard University Blackstone Office renovation project which represents the first pre-1900 building and the first in higher education to achieve LEED Platinum certification. The facility includes numerous sustainable enhancements, such as glazed windows to minimize heat loss and gain; Intelligent lighting incorporating automated sensors; large skylight canopy that allows natural daylighting into a three-story stairway; reuse of original timber frame and deck in interior design; and an open floor plan that allows 90% of employees to have outdoor views. The landscaping incorporates a bioretention pond and adjoining bioswale, as well as no-mow grass and drought-tolerant plants. Two geothermal wells provide heating and cooling for the Blackstone complex, and the project realized a 99.5% construction waste recycling rate. The project's construction manager was Consigli Construction and the architect was Bruner/Cott Architects and Planners of Cambridge.

Heading downtown into the heart of Boston is the 22-story, 600,000 s/f J.W. McCormack federal office building that is currently undergoing a complete renovation and is targeting a LEED Gold rating.. The project is the largest federal renovation project ever undertaken with a goal of LEED Gold. Some of the upgrades include new MEP systems with variable speed drives for fans and pumps; lighting with motion sensors and daylight dimming; and new double-pane, low-e windows. The project also includes commissioning to ensure optimal performance, and maintenance of all building systems. Plumbing fixtures will reduce estimated water consumption by 32% over code requirements. Use of low-emitting paint, carpeting, and Forest Stewardship Council (FSC) wood will improve the buildings indoor air quality. 90% of building occupants will have views to the exterior, and a construction waste management plan will recycle or salvage at least 75% of non-hazardous construction and demolition debris. And finally, a dramatic green roof will be installed on the roof of the 4th and 5th floors. Members of the project team include architect Goody Clancy and construction managers, Suffolk Construction Co. and Tishman Construction Co. These green historic projects epitomize the forward thinking that is contagious in green construction with their extensive re-use of existing buildings and the ingenious methods of incorporating sustainable materials and practices into their renovations. By finding new ways to use and preserve old buildings, the possibilities of going green become endless. Please take advantage of the opportunity to visit these buildings when you're in Boston, and sign up to take part in a green building tour at Build Boston or Greenbuild! As one of the largest conferences of its kind, Greenbuild promises to be the ultimate destination for learning about the possibilities of sustainable thinking.

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