



The ABR-owned hotel, Element Irvine, was intuitively constructed with an efficient use of space and a focus on sustainability.

Sustainability in Real Estate: A Conversation with Ralph Bennett

ABR Capital Partners (ABR) recently spoke with University of Maryland Architecture professor, Ralph Bennett (RB), about sustainability in real estate and how the real estate community can have a positive impact in this area. Professor Ralph Bennett is a graduate of Princeton University, President Emeritus of the architecture firm Bennett Frank McCarthy Architects, previously chaired the Montgomery County Housing Opportunities Commission, has taught at Harvard University, and currently teaches at the University of Maryland's School of Architecture, Planning and Preservation.

ABR: How did you first become involved in sustainability issues?

RB: In the 1990s it was clear that we were going to be paying more attention to these issues and when I retired from my architecture practice in 2008, I had an epiphany and decided that I needed to become qualified on these issues, so I became a LEED Accredited Professional in building design and construction, and became acquainted with the rating systems then in force. That led me to study other aspects of sustainability and I created a course called *Measuring Sustainability* for our students, which deals with

rating systems. It's clear that we have to do something about what's happening around us and that involves reducing the carbon emissions from buildings. That is what has animated my studies and teaching over the past several years.

ABR: Regarding carbon emissions, state and local governments are increasingly passing laws that mandate lower emissions from commercial real estate. These laws are sometimes referred to as the “sticks” in a “sticks and carrots” approach that policymakers are taking to address climate change. What are your thoughts on these “sticks” and the environmental impact they can have?

RB: There are new building codes that are emerging in municipalities across the country related to Climate Action Plans. A corollary to any such plan has to be some kind of directive toward existing buildings and these are manifesting themselves as building energy performance standards. Maryland is developing building energy performance standards that will provide a compliance regime that includes the staged improvement of existing buildings. In Maryland, and Montgomery County, these standards are being applied to larger properties. The minimum area is going to be 25,000 square feet and both commercial and residential buildings will be required to reduce their energy consumption in a systematic, planned, and enforced way over the next decade or 15 years. This is a huge change. It is the first time any jurisdiction has applied energy regulation to existing buildings. It is new territory for the regulators and it is certainly new territory for building owners. As yet, the final schedules are not established and there also has to be some compensation for buildings that are designed to provide subsidized housing. Housing types are different in their greenhouse gas emissions, and commercial properties are different from residential properties. That classification has to be worked out and this is all underway at the state and county levels.

ABR: It sounds like the regulators have a lot to consider as they finalize the new standards.

RB: It's complicated and of course, in the United States, we wouldn't undertake such regulations without taking the various stakeholders into account, so the committees that are considering this legislation, at both the state and county levels, include real estate owners, builders, architects, engineers, and regulators. There is also a new interest in the idea that we should keep track of the carbon that is embodied in the materials and processes we use to build buildings. This embodied carbon focus is developing a whole new area of regulation, which is a new “stick.”

ABR: Regarding embodied carbon, most people are familiar with operational carbon, which is produced by the normal day-to-day operations of a building, but many people are less familiar with embodied carbon. Can you please describe this type of carbon?

RB: Embodied carbon is very interesting and it's causing its own rating systems to emerge. Exclusive of daily operations, the extraction, manufacturing, construction, use, reuse, and demolition of materials all involve transactions with carbon, and these transactions together constitute embodied carbon. If you analyze the life cycle of a building, which is called life cycle accounting, you take a look at a building from the extraction of the materials that are used to

make its components, through the building's construction, its useful life, periodic updates and renovations, which typically happen in a five or ten year cycle and includes the use of new materials and so forth, through to the building's demolition and the extent to which the demolished building can be reused for other things. In all of these processes, carbon emissions occur. This kind of life cycle cost analysis, which includes embodied carbon emissions, has been an arcane activity, but it is something that will be required within the next few years by mandate.

It really is meritorious to try and discover ways to continue the use of buildings rather than destroying them and starting all over again ... I think the merits are certainly related to carbon. They can also be related to energy. Although the energy performance of older buildings, of course, needs to be improved in the process of renovation. It is also cheaper to renovate than to build from scratch.

ABR: There are studies showing that because of the amount of embodied carbon involved in demolition and new build projects, extending the useful life of an existing property through a renovation, refurbishment, adaptive reuse project, or other method, is better for the environment than demolishing a property and engaging in new construction. What are your thoughts on this?

RB: In general, the fabric of a building is a very complex undertaking, and to demolish the skills, materials, and thought that went into existing buildings is tragic in a way. It really is meritorious to try and discover ways to continue the use of buildings rather than destroying them and starting all over again, but even so, there are benefits to be reaped beyond just the respect for the past. I think the merits are certainly related to carbon. They can also be related to energy. Although the energy performance of older buildings, of course, needs to be improved in the process of renovation. It is also cheaper to renovate than to build from scratch. It is certainly simpler in the regulatory process and in many cases it's rewarded by historic preservation ordinances which provide benefits to people who retain existing buildings.

ABR: What kinds of programs are available to help property owners who want to renovate or make energy improvements to their buildings?

ABR: What would you tell property owners who want to renovate their buildings in order to reduce their carbon emissions, become compliant with new legislation, lower their energy costs, etc.?

ABR: What role has affordable housing played in carbon reduction efforts?

RB: Every one of the building energy performance standards I talked about earlier is accompanied by a series of benefits programs, whether it's low interest loans or outright grants and tax credits. The Inflation Reduction Act also has an enormous amount of money and other financial incentives for the improvement of existing buildings, particularly of course, assisted housing projects through HUD.

RB: I would say the first category of improvement for an existing building is the building's envelope: windows, walls, and the roof. At the same time, the mechanical systems of buildings are central to their performance, so improvements in those areas should be considered and of course, mechanical engineers are absolutely essential to assess strategies.

There is also a cost/benefit to doing all of this. If you can reduce the cost of fuel in a building, the savings are real. Building owners should also be alerted through their attorneys and other consultants of the financial assistance that is available to them during such an undertaking.

RB: It has been clear from the 1990s that because of restrictions placed by lenders on the financing for affordable housing, not to mention good intentions related to climate change, affordable housing has led the innovation of sustainable buildings on the apartment side. In fact, the most demanding sustainability standard is called passive house. It is a German standard that measures the total energy used in a building, the energy used for heating and cooling, and the tightness of the building. In other words, the ability of the building envelope to not leak hot or cold air. That standard has now been mandated by some affordable housing authorities. The standard transforms the mechanical systems of buildings, making them much smaller and therefore making the energy costs lower and reducing the cost of housing for residents. This has been going on for a long time, and it's continuing and escalating, and it's impressive to watch.

ABR Capital Partners (ABR) is an independent real estate investment manager specializing in core-plus, value-add and opportunistic investments in the middle market. Since 1972, ABR has invested more than \$4.5 billion across its investment vehicles.

For more information visit abrcapital.com.

© 2024 ABR Capital Partners, LLC