Sorting Through Green Building Myths and Facts

Contributed by Martin Melaver
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Sustainable buildings don’t have to cost more to construct as major corporations and the government are discovering.

Everyone wants to spend money wisely and do what’s best for their family or business, and “green,” sustainable buildings do just that.

Major corporations and stuffy federal bureaucrats alike are on board with green building. The cost difference is slim to none. It’s just good sense, really – make smart choices in the design, building or renovation phases and then enjoy the benefits, such as lower utility bills.

There are many benefits to green buildings besides lower operating costs. Green buildings are recognized as better investments than non-green buildings – two recent studies show that green certified buildings outperform peers in occupancy rates, sale price and rental rates.

Green buildings can add up to huge environmental changes, since energy use by buildings makes up more than a third of the energy consumed in the U.S.
Leadership in Energy and Environmental Design (LEED®) certification is the internationally-recognized standard for high performance, low-water and energy-use buildings awarded by the U.S. Green Building Council.

With rising energy prices and interstate fights over water, green building looks like an even smarter choice for the future. The average LEED-certified building uses 32 percent less electricity and 36 percent less total energy than -regular new buildings, with energy -savings in the highest level LEED buildings approaching 50 percent. Water usage in LEED-certified buildings is on average 30 percent less than non-LEED buildings.

Despite the mainstream embrace of green building, green building concepts remain new to some consumers and businesses. Many are mislead by myths related to these sustainable practices, so let’s take a look at some facts.

MYTH: Only tree-hugging, tie-dye wearing, Grateful Dead-listening hippies are into this stuff.

FACT: Federal, state and local governments, educational institutions and non-profit organizations are developing green buildings.

LEED initiatives are finding their way into legislation, executive orders, resolutions, ordinances, policies, and incentives in 77 cities, 24 counties, 19 towns, 28 states, twelve federal agencies, twelve public school jurisdictions and 36 institutions of higher education across the United States.

Over 40 percent of Real Estate Investment Trusts in the United States are actively pursuing energy efficiency and green building upgrades with another 30 percent planning to do so.

MYTH: Green buildings cost more. (Hint – they don’t. * If you’re about to stop reading and skip to another article, stick with us for three or four more sentences – this is ---a crucial point: green buildings don’t cost more.)

FACT: Study after study has shown a slim to non-existent cost premium for building high performance green -buildings.

In 2003, Gregory Kats, of Capital E energy consultants, released a study showing that the average construction premium for a sample of 33 LEED buildings across the country was 1.84 percent.

In 2004, the U.S. General Services Administration (the agency that builds or leases millions of square feet for federal offices, courthouses and special facilities) reported that the anticipated construction premium for new federal courthouses would range from a negative 0.4 percent for a “low-cost” LEED-Certified facility, to a high of 8.1 percent for a “high cost” LEED-Gold facility.

In 2005, Turner Construction’s Market Barometer study found that the average estimated cost premium for sustainable building is only 0.8 percent for a basic LEED certification.

In 2006, real estate consultant Davis Langdon compared the cost of 83 buildings seeking LEED certification against 138 conventional buildings.

Their analysis concluded that “the cost per square foot for buildings seeking LEED certification falls into the

existing range of costs for buildings of similar program type.”

In 2007, PNC Financial Group began a major, green bank branch construction program. Their LEED-Certified branches cost PNC $100,000 less to build and take 45 days less to construct than comparable conventional bank branches.

FACT: Not only do LEED buildings cost pretty much the same as conventional buildings, but they cost less to operate, often result in greater occupant productivity and are increasingly better investments than their conventionally built counterparts.Lower Operational Costs - Savings in energy costs of 20 to 50 percent are common through integrated design and planning, site orientation, energy-saving technologies, light reflective materials, on-site renewable energy production, natural daylight and ventilation. For example:

- Genzyme’s 12-story, 350,000 square-foot LEED-platinum corporate headquarters in Cambridge, MA uses 42 percent less energy and 34 percent less water than a comparable conventional building.
- Warner Bros. LEED-certified building in Burbank, CA reduced electricity, gas and water costs by 38 percent.Increased Productivity - The Environmental Protection Agency estimates the nationwide value of improved office worker productivity from indoor environmental improvements (such as high quality indoor air, access to views and natural light) to be $20 billion to $160 billion.

- Lockheed Martin’s 600,000 square-foot high performance facility in Sunnyvale, California reported a 15 percent drop in employee absenteeism – a savings that paid for the incremental costs of the new facility in the first year alone.
- After Toyota’s customer services unit moved into a LEED-Gold building, absenteeism fell by 14 percent. Better Investments - According to the McGraw-Hill 2006 Green Building SmartMarket Report, green buildings deliver: 3.5 percent higher occupancy rates, 3 percent higher rental rates, a 7.5 percent average increase in building values and a 6.6 percent higher return on investment.

- Upon its completion in mid-2006, the 40-story, $200 million, LEED-Silver, One South Dearborn Street building was already 93 percent leased, while the rest of the downtown Chicago market faced a 14.3 percent Class A office vacancy rate. Later in the year, developer Hines sold the office tower to the Olen Properties Group for $344 million, a $144 million profit
- One Crescent Drive, a four-story LEED-Platinum office building in the Philadelphia Navy Yard Corporate Center, has rental rates that are 25 to 50 percent above the market average.
- Herman Miller’s LEED-certified ‘Marketplace’ provides $6 million in savings over what the company would have paid in a conventional 100,000 square-foot leased space – including: 33 percent reduction in building costs, 41 percent reduction in operating costs and a 66 percent reduction in chum-related costs over their seven-year lease.

MYTH: Green building doesn’t really make a difference.

FACT: According to the USGBC, In the United States, buildings are responsible for: 39% Energy Consumption
71% Electricity Consumption
12% Potable Water Consumption
30% Raw Materials Use
30% Waste Output
39% CO2 Emissions

FACT: High performance green buildings use less, waste less and produce less green house gas emissions than conventional buildings. High performance green buildings address concerns over rising energy costs, drought and global climate change

MYTH: Finding someone with green building expertise is too -difficult.

FACT: In Savannah alone, where sustainable commercial real estate developer Melaver, Inc. is headquartered, there are well over 100 LEED Accredited Professionals. LEED AP’s have a thorough understanding of high performance green building practices and principles as well as the LEED rating system and its application. Local LEED APs include architects, engineers, general contractors, consultants, interior designers, planners and even a couple of commercial real estate agents. Nationwide over 40,000 people have become LEED APs since USGBC launched the accreditation program in 2001.

MYTH: Green building technologies have not been developed yet.

FACT: New building technologies that help improve energy efficiency and enhance occupant health have been developed, are constantly improving and becoming less expensive all the time and over 900 vendors displayed their

green products at the Greenbuild Conference in 2007.

FACT: Green buildings also employ common sense, low-tech strategies (that are really nothing new at all) including use of regional materials and manufacturers, selecting infill or transit-oriented sites, use of insulation, south-facing building orientation, landscaping with drought-tolerant and/or native plants, re-use and/or recycling of existing building components and providing occupants access to fresh air and views.

Another fact that can not be overstated is that the construction of energy efficient and healthy places to live and work will likely become more of a necessity as population growth and energy demands continue to increase. Learning more about these concepts will be critical for the future success of developers and their projects. SLDT