

Green Living in McAllen

This newsletter, produced bi-monthly by the McAllen Chamber of Commerce, is to help our community residents save money and live greener, more sustainable lives. Please email nmillar@mcallencvb.com with comments and submissions.

- **Alternative giving:**
Rather than purchasing a gift from a store, come up with a handmade or creative gift that costs little or nothing. Here are some ideas that are both meaningful and useful to the recipient: gifts of time with creative gift "coupons" for services such as babysitting, massage, raking, weeding or cooking (or customize to the people you are giving it to: what would they most appreciate?) Consider also a priceless, personalized gift, such as writing a poem or song, making a collage or other arts and crafts projects, or putting together a family book or photo album, a hand-knit scarf or mittens, or pass along a family heirloom or jewelry.
- **Eco-friendly cards:**
Send e-mail cards or recycle last year's cards by cutting pieces out of them and gluing them to new paper.
- **Forgo wrapping paper:**
Don't buy wrapping paper this year - save trees and money by being creative and making your own using newspaper, magazines, scarves or leftover wallpaper to wrap gifts, or enclose presents in a reusable box or bag. Hide big presents under a sheet or towel and make a treasure hunt game out of it for your kids!
- **Be creative when decorating:** The greenest holiday decorations are those you make yourself, such as stringing popcorn and cranberries together, or get the kids involved making the decorations out of leftover construction paper or last year's holiday cards. Better yet, let your children discover what nature has to offer: take a walk with them around your backyard to find decorative items such as pinecones, leaves, berries, and flowers (many natural decorations have the added plus of being compostable after the holidays!).
- **Get a live, replantable tree.** A live, potted tree can serve your holiday needs and then beautify your yard for years into the future. A live tree provides an ongoing remembrance of the holidays, as well as cleans our air and helps protect the planet from global warming. The tree will survive indoors for about a week with ample watering, and then when you're ready, transplant it outside in a spot you have already prepared, or donate it to a school, park or community center.
- **Think practical:**
Buy and ask for practical gifts or presents that save money and resources for you or the user in the long term: a stainless steel water container, a beautiful reusable mug to bring to coffee outings, a cloth grocery tote bag to use for shopping. When buying appliances or products like computers, look for the Energy Star label, which ensures it is energy efficient and will save you money over the long term. Rather than frivolous presents, buy and ask for presents that you or others truly need.
- **Give back:**
It is especially important to think of others less fortunate this holiday season - donate gifts, clothing or leftover food to a homeless shelter (or volunteer your time) and feel the meaning of the true holiday spirit!

For more ideas and resources, visit the EcoMall.com web site at www.ecomall.com

Since its launch in November 1994, the EcoMall has provided educational articles, a comprehensive selection of environmental companies, products and services, exclusive interviews with celebrities and more. The EcoMall offers a voice to America's sustainable business industry, featuring over 300 retailers and wholesalers in over 60 shopping categories, links to government education, non-profit groups, environmental news, activism alerts, as well as the EcoMall's popular "Green Living Magazine". 2009 will mark the EcoMall's 15th year on the Internet.

Contact: EcoMall (845) 679-2490 ecomall@ecomall.com

Join Earth Day Network to demand real environmental action now!

The World Health Organization estimates that climate change is responsible for over 1.3 million deaths since 2000. Yet our economy's dependence on nonrenewable energies is depleting our resources, polluting our earth and adding carbon-dioxide to our atmosphere. Times are tough, but if we don't work together to find environmental solutions they are going to get tougher.

A stimulus package of \$400-\$700 billion will be sent to Congress in a few short weeks. Earth Day Network urgently needs your support now to ensure that 1.3 million deaths are not ignored, and environmental campaign promises are carried out.



Our goal is to raise \$200,000 for our grassroots campaign to keep Congress focused on developing a road map to solving climate change and developing a truly green economy.

[EDN needs your help now](#) to fight for:

- Demanding a **carbon-free future** based on renewable energy with the ultimate goal of a coal-free world.
- Establishing **personal commitments** to responsible, sustainable consumption.
- Creating a **new green economy** to create jobs and help people out of poverty.

EDN is launching the **Green Generation Campaign**, a global communications and action plan that will capitalize on our unique ability to unite nearly **a billion people around the world** to stand up for our planet not just on Earth Day but every day. **[We need your continued support to use our new leverage in Washington and mobilize the public to create a greener world.](#)**

We urge you to [donate now](#) and become part of the solution to climate change. Join our Green Generation, and support EDN as we build an active, educated, greener America and global community.

Understanding LEED®

By: Timothy Boe
www.eco-tects.com



Sustainable design and green building has become a topic of great interest, especially now that the rumors of climate change and global warming have been verified as being true. Many of the questions commonly asked by an interested public relate to the goals of LEED (Leadership in Energy and Environmental Design). When the topic of LEED is brought up, people often have mixed feelings, most of which stem from confusion as to exactly what it is LEED seeks to attain.

To some, LEED seems to be just one more hurdle to clear on the path to getting a planning or building project approved. Many municipalities are now beginning to incorporate LEED standards into their approvals process for construction projects. To others, LEED is believed to be an end in itself -- a new way to approach building in general. Truth be known -- depending on how LEED is viewed, it may be regarded as a hindrance or a boon. Since LEED or some version of it is here to stay, it's wise to become friendly with the process.

LEED was first launched by the US Green Building Council (USGBC) in 2000 to help fill a void in established guidelines for achieving environmental solutions and sustainability in the world of land planning and building construction. Although LEED is not the only standard by which to measure a project in relation to environmental goals, it is one of the more recognized and accepted, especially in the United States. Nonetheless it was never intended to be the final word. In fact LEED, both in terms of accrediting professionals and the certification of projects, is currently being overhauled for release in 2009.

In the meantime there are some basic standards that will continue to apply. These are similar to the principals being employed in all the various rating systems. The following list, while following the LEED format, contains good basic guidelines for the eco-conscious designer and/or builder to follow.

For those interested in applying for LEED Certification on a building project, there is a grand total of 69 points available in the LEED rating system. The total possible number of points available for each section of the LEED Project Checklist are listed with each section below. For more details on the LEED certification process visit www.eco-tects.com and click on the LEED tab.

LEED® Rating System	
Total Possible LEED Points	69
<i>Practice Green Siting & Land Use</i>	<i>14</i>
<i>Improve Water Efficiency</i>	<i>5</i>
<i>Energy & Atmosphere</i>	<i>17</i>
<i>Materials & Resources</i>	<i>13</i>
<i>Indoor Environmental Quality</i>	<i>15</i>
<i>Innovation & Design Processes</i>	<i>5</i>
Award Levels	
<i>Certified</i>	<i>26-32 points</i>
<i>Silver</i>	<i>33-38 points</i>
<i>Gold</i>	<i>39-51 points</i>
<i>Platinum</i>	<i>52-69 points</i>

Practice Green Siting and Land Use Standards:

(14 Points possible)

Choose Sites in Development Areas: As opposed to growing the urban footprint, look for in-fill sites in areas where existing residential neighborhoods, transportation, schools, hospitals, fire and police services, office/retail amenities and infrastructure already exist.

Develop Brownfield Properties: One of the basic axioms of sustainability is the principal of reuse. The same holds true when it comes to site selection. Redeveloping an in-fill site and possibly even restoring an existing building, or other structures, reduces the amount of new building material that will be required for the project. It also saves existing building materials from being unnecessarily discarded. If the site is already contaminated, that's even better from the environmental perspective. Just one less toxic headache to contend with in the future.

Locate Close to Public Transportation: Developing sites situated close to public transportation hubs, along bus or train lines, adjacent to bicycle or pedestrian paths and trails, or close to high density residential communities, helps to reduce automobile use and take cars off the roads.

Maximize Site Open Space: Cluster buildings in such a way as to preserve as much of the natural site as is feasible. At the same time, lay out the project to protect sensitive areas such as wetlands, or wildlife habitat, while conserving natural amenities and restoring damaged locations. These actions will result in increased habitat, which in turn will encourage biodiversity.

Storm Water Design and Control: Mitigate storm water run-off and increase areas of on-site retention and infiltration. Impervious surfaces allow the rainwater to seep through and the groundwater to recharge. Filtering devices can remove contaminants collected by run-off.

Reduce Heat Island Effects: Dark colored roofs and blacktop paving surfaces absorb heat. This creates great differences between the thermal levels of developed and

undeveloped areas. Heat Islands have very negative effects on micro-climates and wildlife habitats. Use light color reflective "cool roof" materials to reduce Heat Island effects.

Light Pollution Reduction: Inefficient site lighting creates ambient light escape, impacting the nocturnal environment. Poorly planned site lighting and light spillage from buildings costs more in energy to achieve the optimum foot-candles at the desired areas, while also decreasing night sky visibility in surrounding areas by creating sky-glow and glare.

Improve Water Efficiency:
(5 points possible)

Utilize Water-Efficient Landscaping: Plant drought-resistant native species. Utilize high efficiency irrigation methods including drip irrigation, rainwater capture, grey water reuse and minimal use of potable water.

Innovative Waste Water Technologies: Additional consideration is given in the LEED scoring system for the use of advanced water saving and recapturing systems.

Water Use Reduction: Specify water-efficient plumbing fixtures and equipment in buildings. LEED points are awarded for 20%, and again for 30% water use reductions.

Energy and Atmosphere:
(17 points possible)

Prerequisite Requirements: Fundamental Commissioning of the Building Energy Systems, Minimal Energy Performance, and Fundamental Refrigerant Management are basic requirements for LEED Certification. Calculations to demonstrate compliance with the energy standards required for certification must be prepared to accompany an application for submittal to the USGBC. These calculations may be prepared by the HVAC Engineer, Contractor, or by a LEED Advocate.

Optimize Energy Performance: Building form, orientation, glazing, insulation, daylighting, and controls all contribute to the amount of energy that a building will consume in order to remain at optimum comfort levels. As these considerations involve all the various areas of design responsibility, LEED encourages the participation of the entire project team in energy optimization from the earliest stages of the project design.

On-Site Renewable Energy: Renewable energy sources harvested on-site from energy sources such as solar, wind, biomass, and geothermal reduce the consumption of non-renewable energy sources. A minimal reliance on fossil fuels is encouraged.

Enhanced Building Commissioning: Use a third party source to verify that the building is designed, constructed and calibrated to operate at optimum energy levels. Individual tenant spaces should utilize zones and metering to reduce redundancy and waste during building operations. Commissioning programs are available as software programs. If LEED certification is desired, specify to the project team at the outset that such commissioning will be required.

Enhanced Refrigeration Management: Hydro-chlorofluorocarbons (HCFCs) cause a depletion of the ozone layer when released into the atmosphere. Specify Heating, Ventilation, and Air Conditioning (HVAC) equipment and fire suppression systems that

do not contain HCFCs.

Materials and Resources:

(13 points possible)

Storage & Collection of Recyclables: Required

Building Reuse: LEED consideration is awarded for retention and reuse of materials from existing buildings in credit stages of 25%, 50%, and 75%. Extending the life cycle of existing building materials is encouraged through their reuse in new structures. This practice reduces the overall environmental impact of new buildings.

Construction Waste Management: Materials generated during the construction process should be diverted from landfills. Ideally these materials can be reused in the new building project. For LEED certification, the process must be monitored to verify the proper handling of materials. This process is performed by a contractor trained in the LEED process, or by a project LEED Advocate. LEED credits are awarded for diverting 50% and 75% of materials from disposal.

Reused and Recycled Materials Content: The specification of salvaged or refurbished materials -- cabinets, flooring, doors and frames, brick, masonry, light fixtures, fireplace mantles, paneling, trim, fixtures, etc. -- while diverting these items from landfill, also prolong their life cycle.

Recycled Content: Specify products that contain recycled materials. More recycled materials qualify the project for additional LEED points. Design buildings in such a way as to provide for occupant recycling of waste.

Specify Regional Materials: Materials that are manufactured or harvested locally require less energy consumption for transferring them to the project location. As a general rule of thumb, try to specify products that travel less than 500 miles to arrive at the building site.

Specify Rapidly Renewable Materials: Materials that are rapidly renewable are preferable to those that have a long growth cycle, or are not renewable. Many innovative products that come from rapidly renewable resources are now entering the marketplace, and more will become available as they continue to be specified.

Use Certified Wood Products: Specify wood products that are harvested from certified sustainably managed forests. These forests do not engage in the practice of cutting old growth lumber, and have adopted sustainable regrowth practices.

Indoor Environmental Quality:

(15 points possible)

Minimum IAQ Performance -- Required: Establish minimum Indoor Air Quality performance to enhance the livability and comfort of building occupants. Design buildings to meet minimum outdoor air ventilation rates and balance to optimize for energy efficiency and occupant health.

Environmental Tobacco Smoke (ETS) Control -- Required: Minimize exposure by building occupants to ETS by controlling indoor smoking and improving ventilation air

distribution.

Outdoor Air Delivery Monitoring: Install permanent ventilation system monitoring to provide feedback on the ventilation system performance and efficiency. Configure the system to provide an alert when conditions vary by more than 10% from an optimum set-point.

Increased Ventilation: Provide a means of accessing additional outside (fresh) air. Natural ventilation has been shown to improve occupant comfort, well-being and productivity.

Construction IAQ Management Plan: Mitigate Indoor Air Quality problems during the construction/renovation process in order to improve the levels of comfort and overall well-being for building occupants and construction workers. An IAQ Plan should include a system to protect the HVAC system during construction, while controlling indoor pollutants.

Low-VOC Emitting Materials: Specify materials that emit low levels of Volatile Organic Compounds (VOC), which can reduce the quality of indoor air for building occupants. These contaminants are odorous, irritating and harmful to the comfort of installers and occupants. High levels of VOCs can often be found in adhesives and sealants. Paints and coatings and some carpet systems are also sources of indoor air contaminants. Specify wood and agrifiber products that contain no added urea-formaldehyde resins. Look for products that comply with various green certification programs to lessen or even eliminate VOCs.

Indoor Chemical and Pollutant Source Control: Employ entryway systems that control and capture dirt and particles before they enter the building. The use of grates, grilles and slotted systems that may be easily cleaned are recommended. Separately ventilate areas used for the storing of hazardous gases, chemicals, or exhaust. Plumb drains appropriately for liquid waste disposal. Protect HVAC system during construction.

Controllability of Systems: Provide a high level of individual control to specific occupant and multi-occupant spaces for HVAC and lighting. This reduces waste in unoccupied areas, and provides for optimum comfort levels for building occupants.

Daylight and Views: Many studies have been done that verify what common sense has always told us -- the introduction of natural daylight and views to interior spaces has a very positive effect on the overall health and well-being of the building occupants. Accordingly, LEED has awards credits for thresholds of 75% and 90% interior views.

Innovation and Design Processes:
(5 points possible)

Innovation in Design: LEED recognizes that sustainable design strategies are continually evolving as new technologies come into the market and are embraced by the building industry. With that goal in mind the LEED rating system encourages builders to explore and consider these new sustainable solutions. One of the ways in which the latest industry knowledge may be revealed is by utilizing the project team process. This arrangement involves the entire project development team from the inception of the project, in order to align their contributions of innovation and new product knowledge for the good of the project.

LEED Accredited Professional: For a project to be considered for LEED Certification, an application process is mandatory. The required coordination and monitoring throughout the project requires a specific base of knowledge on the subject of sustainable design from which to operate. To insure that a pool of individuals who possess such training exists, LEED offers an Accreditation Program for professionals. Those completing such a program may use the designation LEED AP in connection with their name. For obvious reasons, professionals who are knowledgeable in the LEED process (accredited or not) can help insure that the goal of sustainability is met. Accordingly, LEED awards 2 credits for the involvement of a LEED AP professional on a building project.

Summary:

Regardless of how it is viewed, LEED is a positive attempt to encourage sustainable design in a society that has lost its environmental compass. As an architect, I don't see anything in the LEED Guidelines that is not mandated by common sense and good design practice. Nonetheless, in the quest for financial savings at all costs, many non-sustainable practices have been adopted over the years.

Apparently our society has unknowingly been willing to trade environmental considerations for cheap products and non-renewable energy sources, as long as they believed the price was simply an "acceptable" level of pollution. Now with global warming as a verifiable reality, the actual costs of those materials and practices have become much higher. LEED is not a "silver bullet" that will slay the specter of climate change in a single shot, but it is a mighty tool in the hands of a trained and considerate Design Team.

Today, every civilized nation in the world is scrambling to undo the damage that has been unwittingly done -- or at least slow down the ongoing deterioration of our planetary eco-system. Depending on who you listen to, we may be winning that race, or heading towards impending disaster. Regardless of who you choose to believe, the question remains relatively mute as long as we are utilizing the best available measures to practice global stewardship. Understanding and practicing the principals outlined in LEED will serve as a giant step in that direction.

Timothy Boe is an architect and founder of BOE ALLIANCE INTERNATIONAL. With almost forty years of experience in the design and building industry, Mr. Boe brings a vast knowledge of numerous building types, as well as a considerable body of experience in urban design and planned communities. During his long career, Mr. Boe has been involved in numerous environmentally related projects, including several that have been bestowed awards for thoughtful re-use of "brownfield" properties, innovative planning solutions and adaptive re-use of properties involving lead base paint, asbestos abatement, site clean-up, wetlands enhancements and the creation of wildlife sanctuaries for threatened species. Mr. Boe has also served continuously since 1989 on the Board of Directors for Windwalker International... a sustainable alternative energy company.

Clements Checklist Now Available Online

You can download an Excel spreadsheet of the entire checklist. The latest updates and corrections were also posted on November 26.

<<http://www.birds.cornell.edu/clementschecklist>>

rebuild & renew: Green Communities. Green Economy.

As the building sector accounts for nearly one in 10 dollars of U.S. GDP, the economy is dependent on strong design and construction industries. And America's architects are ready to jumpstart the economy; the AIA has developed an [aggressive plan](#) that will stimulate the building industry by creating 21st century communities.

To create one's own world takes courage.

GEORGIA O'KEEFFE

Summary: Speaking at the 2009 Ecobuild conference in Washington, D.C., on December 10, AIA President Marvin Malecha, FAIA, called for new perspectives on sustainable building. Malecha **envisions sustainable design as a broad-based attempt to make wholesale adoption of environmental context the primary energy performance and aesthetic driver of design.** By failing to make this transition, architects might make themselves irrelevant. By seizing upon it, he sees them leveraging their critical, creative, and design-oriented expertise into collaborative leadership roles that are desperately desired.

www.earthshare.org