



The Green Door

August 2004

The Green Door is a monthly newsletter of sustainable building and real estate geared to present and future homeowners.

“I am a Material girl, living in a Material world” -Madonna

*We look forward to the re-opening of Seattle's **Environmental Home Center** which was destroyed by fire this week. We are saddened but know they will be back!!*

Sustainable Materials and Resources

Learning about building materials is similar to that moment of childhood enlightenment, when we realized that milk does not come from the store in bottles, but from cows. Building materials have significant health and environmental impacts. We are very much a throw away society and the old paradigm of “**take-make-waste**” is a non-sustainable legacy for our children. We need new ways to think about and select our building materials beyond initial cost.

One new method of looking at materials is through **Life Cycle Assessment**. A **Life Cycle Assessment (LCA)** looks at all aspects of a particular material or product. What is the source of the raw material? Where is the source of the material? What processes are involved in obtaining the material and what are their impacts? What processes are used to refine the material and what is their impact on the environment? What kind of transportation is required? How well does the material meet its intended function? What happens to the material when it is no longer needed? Based on these questions a numeric value allows us to compare materials and make appropriate choices. See August Websites for Life Cycle Assessment tools such as **BEES** (free from the feds) and **ATHENA**.

Using recycled aluminum instead of buying new aluminum made from Bauxite, saves 95% in energy production costs.

Internationally renowned designer William McDonough has introduced the concept of “cradle to cradle” cycles in his new book “**Cradle to Cradle: Remaking the Way We Make Things**”. Instead of making “cradle to grave” products dumped in landfills at the end of their life, a sustainable society creates products for “cradle to cradle” cycles, whose materials are perpetually circulated in closed loops and leave no toxic residue. Maintaining materials in closed loops maximizes material value without damaging ecosystems.

In order to begin to close the materials loop we need to look at these sustainable categories: **Salvaged Materials**-new use (used again) in existing form (i.e. salvaging an old door, buying second hand clothes, toys); **Recycled Materials**-new use in a new form, including both post consumer recycled content and post industrial recycled content, as well as combinations of both; **Rapidly Renewable Materials** which include materials that are grown in less than 10 years, like straw for strawboard and bamboo flooring; **Locally Harvested Materials** and **Locally Manufactured Materials** reduce transportation impacts, add to the local economy and are more likely to have lower environmental impact than imported materials.

Manufacturing cement for concrete is responsible for 6-7% of all global warming carbon dioxide.

Northwest Living Green Program on King5 The mission of this new program is “to educate, and encourage green building, living and gardening practices and purchases in the Northwest”. Hosted by King 5 television’s Environmental Reporter and Northwest Living Green Team at King-TV. Northwest Living Green was launched on Tuesday, July 13th, at a community meeting held by King5 which included an overview of the program and opportunities for local sustainable business involvement. Stay tuned for airing schedule.

Recycle,
Reuse,
Reduce
& Rethink



“What good is a house if you do not have a tolerable planet to put it on?”

-Henry David Thoreau

One current trend is to use **fewer, simpler and natural materials** in building design, such as stone, wood and metals, in their natural, unfinished state. This trend includes looking back to older techniques and processes for finishing that do not include petrol chemicals. For example, the use of plant based waxes to finish wood eliminates production of toxic sealants, does away with unhealthy off-gassing and allows the wood to be composted naturally when it is no longer needed.

Many modern materials provide superior building characteristics, but can also be detrimental to our health. We should look very closely at what chemicals are used to create these materials. Volatile Organic Compounds, (**VOCs**) are to be avoided. These chemicals are known to “outgas” from construction and furniture causing significant health issues for many people. It is especially important to investigate materials that are used inside our homes

Four important areas to review for potential “out-gassing” hazards are **paints/sealants, caulks/adhesives, carpets and composite wood** (plywood, particle board, fiberboard). These materials make up the bulk of exposed surfaces in our homes and therefore contribute significantly to indoor air quality. Carpet, paint/sealants and adhesives are now available that are either very low VOC or zero VOC. Finding **formaldehyde free** plywood, particleboard and other manufactured wood products and formaldehyde free fiberglass insulation is becoming easier everyday as more people see the benefit and create a demand for these healthier alternatives.

A Greener Seattle-Highlight: Great tools for builders and homeowners alike can now be found at the Seattle Sustainable Building Library, located in DPD’s Public Resource Center on the 20th floor of Seattle Municipal Tower at 700 Fifth Ave. For subjects such as what it means to build green, how to increase your project’s energy efficiency, how to find and specify environmentally responsible materials and how to protect indoor air quality, you may check out books with the staff at the Main Public Resource Center counter (bring valid identification) or search the library’s online listing of titles, at: <http://www.seattle.gov/dpd/sustainability>

House Key Plus Seattle Program

A down payment assistance program for first-time home buyers living within Seattle city limits. Qualifications include 1-person yearly income not to exceed \$40,250, maximum purchase price of home \$262,295, must attend free homebuyer education seminar, home must be primary residence, must never have owned a home before.

For more info go to: <http://www.wshfc.org/buyers/keyplusSeattle.htm>

Community Home Ownership Center

Will help you find the resources you need to become a homeowner.

<http://www.choc-wa.org>

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August Websites

<http://www.lead.org/leadnet/footprint/intro.htm>

Calculate your ecological footprint.

<http://www.bfrl.nist.gov/oa/software/bees.html>

Building for Environmental & Economic Sustainability (BEES) free downloadable software.

<http://www.athenasmi.ca/>

ATHENA™ Sustainable Materials Institute

[http://](http://www.deconstructioninstitute.org/calculator/)

www.deconstructioninstitute.org/calculator/

Deconstruction Institute’s facts and downloadable calculator on reusing building materials.

[http://](http://www.healthyhomedesigns.com/articles/information26.php)

www.healthyhomedesigns.com/articles/information26.php

Alternatives to conventional building materials.

JR’s Website Recommendation!!

<http://www.ducttapeffashion.com/>

The Green Door is brought to you by Cally Fulton and Danielle Johnson, both Real Estate Associates with GreenWorks Realty, Seattle and is written by JR Fulton, Architect and LEED Accredited Professional. To save trees and expand the opportunity to share information, please provide us with your e-mail address and the address of others interested in making their homes more sustainable. If you or someone you know would appreciate our real estate services please call-

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