

May 29, 2008

Sustainability starts with historic preservation

• *The greenest buildings are those that are creatively reused, not razed and taken to the landfill.*

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Economists and land-use planners predict that between now and 2050, new construction in the United States will replace approximately two-thirds of the buildings in existence today.

As our concerns about carbon emissions and global warming grow, it's increasingly evident that sustainable construction should be more than a trend. Building green must be a priority, and we should not forget that reuse is the ultimate recycling. Older buildings, in particular, are a renewable resource. It's hard to top the benefits of saving durable building materials like old-growth timber and brick from becoming landfill.

_____ In the past, we saved older buildings for their historic value. Today, we need to consider reusing buildings in terms of sustainable development. Green building is a key strategy in addressing the climate change crisis, and adaptive reuse can be the most effective approach. Consider that the United States, which represents 5 percent of the world's population, produces nearly half of the world's waste. We're also responsible for using one-third of the world's resources and creating 22 percent of the world's greenhouse gas emissions, the leading cause of climate change.

As the Puget Sound region continues to focus its growth in our urban areas, Seattle is poised to become a leader in green building.

According to Richard Moe, president of the National Trust for Historic Preservation, adaptive reuse is “simply having the good sense to hold on to things that are well designed, that link us with our past in a meaningful way, and that have plenty of good use left in them.”

Given that construction consumes 40 percent of the raw materials in the global economy, reuse of well-loved and well-built buildings is an efficient part of the solution to our future building needs.

Some may question whether adaptive reuse is simply cost-prohibitive. It is true that not all buildings merit restoration efforts, but through the process of trying new ideas, many projects that first appear impractical can be successful. One has to consider that, given our current situation, buildings and their systems should not be designed to last 30 years as is the case today, but rather for 100 years as was the case before 1950.



Photo by Steven Dubrinski

Starbucks Center, a 2 million-square-foot functionally obsolete building, was renovated into office and retail space to become the oldest and largest existing building to receive LEED gold certification.

Several of our projects in Seattle serve as examples:

- Union Station, once a grand architectural tribute to transportation, fell into disrepair as the golden age of the locomotive faded. Several unsuccessful attempts to rehabilitate the facility followed its closure in 1971. Then in 1999, a \$21 million renovation was completed through a public-private partnership with Sound Transit. Union Station reopened not only as the headquarters for our regional transit agency, but also as the landmark anchor for the development of an additional 1 million square feet of office space, creating additional economic development and benefits for a distressed neighborhood.
- Starbucks Center is an example of conservation on a massive scale. By the late 1970s, the 2 million-square-foot historic building was little more than a functionally obsolete warehouse. Starting in 1991, a multi-million-dollar investment restored the building’s architectural heritage while providing the necessary technological upgrades to be the ideal headquarters of a global company. Today, Starbucks Center is the largest and oldest

existing building to receive a LEED gold certification, and it will continue to house numerous tenants for years to come.

Some may argue that the energy used in demolishing a building and replacing it is quickly recovered through the energy efficiencies of a new building. Not true. Research indicates that even if 40 percent of the materials are recycled, it takes approximately 65 years for a new, green office building to recover the energy lost in demolishing an existing building.

For example, about 80 billion British thermal units of energy are embodied in a typical 50,000-square-foot commercial building. That's the equivalent of 640,000 gallons of gasoline. If you tear the building down, all of that embodied energy is wasted. And, what's more, demolishing that same 50,000-square-foot commercial building would create nearly 4,000 tons of waste. That's enough debris to fill 26 railroad boxcars.

Preservationists embraced the "economic benefits" of reuse years ago. Since 1974, the Historic Seattle Preservation and Development Authority has partnered with owners and developers to rehabilitate and reuse more than 40 buildings. Plymouth Housing Group and other low-income housing providers have redeveloped historic buildings throughout downtown.

As green building receives growing attention from city officials, environmentalists and developers, we need to remember that the greenest building is the one that isn't razed and taken to the landfill — it's the one that is creatively and thoughtfully adapted for reuse.

Kevin Daniels, president of Daniels Development Co. and Nitze-Stagen & Co., develops historic preservation, adaptive reuse and restoration projects such as the Union Station campus, Starbucks Center, Merrill Place, Cadillac Hotel, and Fifth and Columbia Tower. Daniels sits on the board of trustees for the National Trust for Historic Preservation as well as several other community groups.