EC WISE

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Seattle's High Point Uses Whole Building Design for Energy Efficiency, Sustainability and Health

Seattle's High Point community uses the "whole building design" approach, which optimizes how systems and components interact and includes the entire community in the green building concept.

Image Source: seattlehousing.org

In less than three years, with more than 200 affordable new homes sold, Seattle's *High Point* community is attracting a lot of attention. The community has garnered an Urban Land Institute Global Award for Excellence and a Golden Nugget Award for "Best Master Planned Community."

High Point, a redevelopment project of the Seattle Housing Authority, uses the *"whole building design"* approach, which optimizes how systems and components interact and includes the entire community in the green building concept.

The whole building approach improves energy efficiency, sustainability, and occupant health. It begins when planning and designing the building, and continues through construction. The approach requires extensive coordination, including *climate*, the specific *home site*, the building *envelope*, the *heating and cooling systems*, *appliances*, and *lighting*.

High Point is designed to encourage walking and social interaction, decreasing the residents' dependence on cars. It's both socially and environmentally friendly, saving more than 100 mature trees, planting 2500 new trees, and includes 20 acres of open space. This includes front and back yards, gardens, and several parks maintained with organic landscaping. The stormwater is managed through a natural drainage system, using grass and vegetated swales that drain into the community's central retention pond.

In building the community, the developers didn't use conventional demolition techniques. Instead,

Cont. on P2

UPCOMING EVENTS

Environments for Aging
March 21-23, 2010 | San Diego, CA
www.tinyurl.com/yffnoux

Five-Day Intensive EPC Course
June 14 - 18, 2010 | Chicago, IL
Contact: Eugene Goldfarb
312-554-0900 or *egoldf1@uic.edu*

IAQVEC 2010
August 15-18, 2010 | Syracuse, NY
www.tinyurl.com/ydglrk9

Energy and Environmental Building Alliance
October 12-14, 2010 | Portland, OR
www.eeba.org

Enviro Build Expo
October 13 - 14, 2010 | Hartford, CT
www.envirobuildexpo.com

DOE Rule Eases Availability of Weatherization Funds

On January 25, 2010, the Department of Energy (DOE) implemented a new rule for its Weatherization Assistance Program ("weatherization program"). Under the new rule, if a public housing, assisted multi-family or Low Income Housing Tax Credit (LIHTC) building is identified by HUD and included on a list published by DOE, that building meets DOE's weatherization program income requirements without the need for further evaluation or verification, and may meet certain other program requirements. The DOE lists are posted on DOE's web site at: *http://apps1.eere.energy.gov/wip/eligibility_hud.cfm*.

Public housing projects are included on the lists if all buildings in the project meet DOE's income requirements; in addition, individual buildings are included if some but not all buildings in a project qualify.

A minimum requirement for inclusion on these lists is that at least two-thirds of the residents of the building (or 50 percent for 2-4 unit buildings) must meet DOE's income eligibility requirement, which is currently set at 200 percent of the federal poverty level. However, a public and Indian housing, assisted housing, or LIHTC building that does not appear on the list based on HUD records may still qualify for the weatherization program; that determination can be made on an individual basis by the local weatherization agencies that implement the program based on information supplied by the property owner.

The weatherization program increases the energy efficiency of dwellings occupied by low-income Americans while safeguarding their health and safety, through the installation of cost-effective energy efficiency measures. DOE's program received $5 billion in funding under the American Recovery and Reinvestment Act of 2009 (ARRA). DOE provides funding to the states, which in turn contract with local weatherization agencies to implement the program. The rule does not require states or local agencies to fund properties on the DOE list. Nor are states required to establish a particular prioritization with regard to the weatherization of multi-family buildings.

To build on these DOE regulatory changes, HUD plans to begin an outreach initiative for assisted multifamily and public housing stakeholders. As part of this initiative, HUD will schedule informational webcasts providing background information on the weatherization program. Information regarding the dates and times of the webcasts will be provided in the coming weeks.

In order to find weatherization program information and contacts in your state, please follow this link: *http://apps1.eere.energy.gov/weatherization/state_activities.cfm*. Further information about the lists is posted on HUD's web site at *www.hud.gov/recovery*. Questions may be directed to *energyaction@hud.gov*.

Green Building Council and Enterprise Community Partners Develop PHA Sustainability Network

The U.S. Green Building Council and Enterprise Community Partners have created a nationwide network of staff at public housing authorities (PHAs) who are working to expand affordability and improve resident health through green building design, construction and operations. The network's goals include establishing a network of PHA Sustainability Coordinators; sharing and scaling individual PHA successes; highlighting PHAs as a model for green multifamily construction and rehabilitation; and emphasizing the leadership role of public agencies in implementing green building. To learn more, visit *http://sites.google.com/site/sustainpha*.

Free Green Building Video Series

Before you start a new construction or a remodel, take the time to update your staff on the latest information on green building. The Green Building Initiative is offering a series of free videos on their *website* called "Best Green Building Practices" that gives viewers information on green building in the areas of resource efficiency, energy use, water efficiency and indoor air quality. The Initiative promotes green building approaches for residential and commercial construction that will lead to better green building standards. Video topics include energy performance, water management, and housewraps.

Massachusetts Directs Stimulus Funds to Energy-Efficient Heating Systems

The Dedham (Mass.) Housing Authority has been awarded more than $700,000 in stimulus funds to purchase new energy-efficient heating systems for public housing. The Dedham grant is part of federal weatherization recovery funds. "This stimulus program is going to help the residents with their utility bills," Dedham Housing Authority Executive Director Joanne Toomey told the Dedham Transcript. Toomey said the systems would be installed after this winter, so as not to interrupt people's heating.

Source: Dedham Transcript

Calculator for California Solar

Global Green USA has developed a *Solar Affordable Housing Assessment calculator* to help California affordable housing developers evaluate solar photovoltaic options in Low Income Housing Tax Credit developments. The assessment marries design and finance considerations by asking questions that should be answerable during schematic design. The calculator's variables include building location, building design and financing which produces a variety of financial scenarios that can be incorporated into preliminary pro-formas and tax credit applications. The developers' design team can also use the calculator to evaluate photovoltaic sizing options for inclusion in RFPs for solar design/build services.

Cont. from P1

they removed more than 20 of the original buildings by hand, and sold or reused the old materials in the new buildings' construction.

The homes have sustainable and energy-efficient features like compact fluorescent lights, ENERGY STAR washing machines and dryers, and closed-loop hydroponic systems. The buildings also use tankless hot water heaters and windows with higher R-values.

High Point also is building 60 "Breathe Easy" homes that decrease asthma risk factors. Other features that improve air quality include whole-house fans, filtered fresh air intake points, and airtight drywall. The houses also have low off-gas vinyl flooring; low-volatile-organic-compound (VOC) paint; and sealed cabinets. In addition, the Breathe Easy homes include:

· Positive pressure house ventilation systems with air filtering, tempered fresh air supply, and heat recovery to improve indoor air quality;

· Linoleum flooring in living areas and bedrooms, recycled content vinyl flooring in bathrooms and kitchens, and low-pile carpeting in stairs and halls to reduce allergens;

· Low/no off-gas trim and millwork to reduce urea formaldehyde-bonding agents;

· Low/no off-gas or VOC cabinet construction;

· HEPA filter vacuums to remove allergens;

· Walk-off doormats to reduce dirt in the homes; and

· Construction sequences that include extra dry-out time to minimize mold growth; weather protection of on-site materials; ductwork protection to minimize dust; extra cleaning cycles with low/non-toxic and non-allergenic cleaners; and flush outs to allow the evaporation and off-gassing of materials.

You can find more guidance on green building and the whole building approach from the Green Communities Criteria. Green Communities is a green building program that focuses wholly on affordable housing. The program also incorporates a community approach to achieve maximum sustainability and financial benefits.

Homes built using these criteria will be cost effective to build, durable, practical to maintain and environmentally friendly.

Information on High Point was gathered from the *Seattle Housing Authority*.

Resident's Corner Make a Green Resolution This Year

How to Reduce Your Risk of An Asthma Attack

The following practices can help you prevent an asthma attack:

· Keep your home is free of dust, mold, smoke, pet dander and other potential triggers.

· Vacuum often, using HEPA (High Efficiency Particle Air) filters to remove dust.

· Keep foods stored in tightly sealed containers to avoid attracting cockroaches and rodents.

· Clean up crumbs, drips, spills, and dirty dishes immediately to avoid attracting pests.

· Identify and quickly fix water leaks in your home.

· Use zippered "allergen resistant" mattress and pillow covers to control dust mites.

· Keep pets outdoors or away from sleeping areas; clear hairs from carpets and furniture.

· Quit smoking, or smoke outside your home and car. Always keep tobacco smoke, including second hand smoke, away from children.

· Change bed sheets often.

· Keep people with asthma out of a room while vacuuming or dusting.

· Get medical attention for breathing problems.

· Get emergency medical care for severe attacks of shortness of breath or wheezing.

· Take all prescribed medication, either to prevent attacks or to lessen the symptoms.

· Find out what allergies you have so you can avoid these potential asthma triggers.

Source: HUD's Office of Healthy Homes and Lead Hazard Control

We want to hear from you! Please send us nominations for projects to be highlighted in EcoWise.

Contact us at *ecowise@deval.us*