

Seattle Housing Authority



GREEN BUILDING TECHNOLOGY SAVES 37% FUEL

A case study by Marathon International, Exclusive North American Baxi Distributor — www.wallhungboilers.com



*Seattle Housing Authority is building better futures for 1,700 families at High Point, a 120-acre master-plan community— the city's largest housing site. Seattle Housing was one of five developers in the world to win the Urban Land Institute's prestigious 2007 **Global Award of Excellence**.*

Making Low-Income Housing More Affordable

Seattle Housing Authority's investment in greener and more affordable housing options has reaped a dividend of 37 per cent savings in fuel consumption for High Point, its celebrated mixed-income, master-plan community in West Seattle.

Seattle Housing Authority provides shelter for 26,500 low-income citizens a year. An independent public corporation, it serves as the developer and property manager of 5,200 conventional public housing units it owns, helping 12,000 low-income families. Seattle Housing is subsidized by property revenues, private contributions, the **Department of Housing and Urban Development** and its Hope VI program, as well as the **Seattle Senior Housing Program** covering 1,000 additional units for seniors and people with disabilities.

Seattle Housing is a leader in the development of low-impact, sustainable mixed-income communities in a dense urban setting, such as High Point, which is the city's largest housing site. The first step in redeveloping High Point was the demolition of 716 homes built in 1940 as temporary housing. The new community will be completed in 2010, and will feature 1,700 homes – a mix of low-income and market-rate properties.

"This is a dream job to be able to create a master-plan community within the city of Seattle," says **Tom Phillips**, Seattle Housing Authority's senior development manager. He joined the Authority in 2001, after advising developers of large, master-plan communities throughout the nation. "Our work is never finished with thousands more families on a waiting list."



A Model of Sustainability

High Point is a living laboratory for the study of green, mixed-use community redevelopment work. Seattle Housing Authority officials constantly welcome public housing specialists from around the world who seek to glean insights from High Point, winner of the **Urban Land Institute's Global Award of Excellence** for ideas.

"We were one of five developers throughout the world to win the Global Award of Excellence in 2007. I see it as the most gratifying of the 20 awards that High Point has been given over the past few years," says Tom Phillips.



"The Urban Land Institute sent a team of experts, including some of the leading development experts in the country, to examine thoroughly what we have built."

The High Point redevelopment has clearly set a new standard in sustainable green building for housing authorities, going well beyond Seattle's code requirements. It is a pedestrian-friendly community with ample park space, a senior's village, neighborhood center, a new medical/dental clinic and public library. High Point incorporates the principle of "new urbanism," and the latest in green building techniques.

The design team includes firms that are among the region's leaders in sustainable development, and who share Seattle Housing's passion for building a greener, more affordable and more livable community. The community features an innovative natural drainage system, and a host of energy efficient and water conservation solutions, such as **Baxi Luna**, a combination heating and domestic hot water wall-hung boiler.

Compact Heating Solution Saves

"**Mithun**, our architect firm, is a leader in creating specifications for reduced energy use," says Tom Phillips (right photo below). "We relied on them to recommend the right heating and domestic hot water solution for our rental units at High Point. We took their advice, and it was great."

"We recommended the Baxi Luna wall-hung boiler because it supported all of our green goals," says **Matt Sullivan**, Mithun project manager (l. photo). "It is an elegant, all-in-one, backpack-sized boiler with tankless hot water capabilities. It generates fuel use savings while helping us make the most of space limitations. Clearly, the Baxi Luna heating solution frees up valuable living space, allowing us to fit a stackable washer and dryer in the same closet as the combination central heating and domestic hot water boiler."

The Housing Authority is obliged to fix any mechanical problem within 24 hours. With that requirement and, above all, the safety and comfort of its residents in mind, a dedicated team of maintenance mechanics serves the ongoing needs of High Point. Each mechanic has earned Baxi certification, keeping in touch with technicians at **Marathon International**, the exclusive distributor of Baxi products in North America, to optimize performance of all Baxi boilers installed on the site.

"I am impressed that our maintenance mechanics are very excited about the Baxi Luna. They understand the appliance and are committed to fixing any issue in a prompt and conclusive fashion," emphasizes Tom Phillips. "We want a reliable product that works well and is easy to maintain. The Baxi Luna system has held up, producing great results for us."

Marathon has also arranged a 10-year extended parts and labor warranty on all Baxi boilers at Phase 2 of High Point — providing further protection of the housing authority's investment.



Solid Return on Investment

Seattle Housing commissioned a comprehensive independent study to examine the costs and benefits associated with High Point redevelopment. The 97-page report, *Sharing The Benefits of Building Green: A Study of The High Point Community*, showed that homes with Baxi units in Phase 1 of the High Point community enjoyed total fuel consumption savings of 37% over the results for another Seattle Housing redevelopment that is using a different hydronic heating solution. Moreover, total utility costs for High Point were 56% below the Seattle average.

The High Point study showed that the inclusion of conservation technology, including the Baxi hydronic heating system, was a sound investment decision. The report also noted that as utility rates increase, and utilities and government agencies add new financial incentives for conservation, the return on investment can be expected to grow even larger.

Tom Phillips says Seattle Housing will continue to

measure return on its green building investments. "We expect to achieve even greater savings from Baxi heating solutions, as we gain more knowledge about how to get the most out of Baxi systems."

Front Cover Photo



Seattle Housing Authority installed a Baxi solar water heating system at High Point in March 2009. The system includes the solar-compatible Baxi Luna 3 Comfort combination heating and domestic hot water wallhung boiler, which is capable of accepting pre-heated water from the solar storage tank. The green building initiative should generate additional fuel and cost savings.

Green Baxi Energy Stars Build Better Futures



Baxi Luna HT 380 is a modulating, condensing CH & DHW wallhung boiler (up to 98% EE) that produces 3.9 gpm @ 80°F ΔT. Green Builder preferred, this whisper-quiet appliance modulates fully from 112M down to 32M Btu/hr – cutting fuel consumption by up to 50%, and emitting 90% less carbons, 80% less NOx.



Baxi Luna 3 Comfort is a modulating wall-hung combi boiler (up to 89% EE) – an ideal companion with a Baxi solar water heating system. Modulates from 105M to 35M Btu/hr; and is also popular with LEED Builders, – saving fuel, money, emissions and valuable living space (closet-install approved).



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