

St. Paul Public Housing Agency

GREEN INITIATIVES

Promoting Sustainable and Healthy Living Environments



Resource Conservation

The W. Andrew Boss Building is the home of the Saint Paul Public Housing Agency's (PHA) Central Administrative Office. The building was designed and constructed to meet the high standards for a "silver" designation by LEED (Leadership in Energy and Environmental Design). The CAO was constructed in 2004 and includes these environmentally friendly elements:

- Easy access to public transportation;
- Current energy codes standards were exceeded;
- Collection of site storm water in a holding tank under the rain water garden;
- Increased cooling efficiency with solar control louvers over the windows on the building's southern exposure;
- Optimum use of daylight; and
- District Energy hot water and District Energy chilled water cooling; no boiler or air conditioners on-site.

Energy Efficient Systems

Energy Management System. The PHA was one of the first property owners to install a computerized energy management system (EMS), that enables staff and contractors to remotely monitor and control heating, ventilation and community room air conditioning (HVAC) at all 16 public housing hi-rises. As the technology has improved over the years, the PHA has made many refinements to its EMS. The current EMS conserves energy, reduces emissions, promotes resident comfort and greatly reduces the staff time needed to monitor and control HVAC systems.



Upgraded Boilers. (554 Central, 899 Cleveland, 1085 Montreal and 325 Laurel (Neill)) The PHA upgraded hi-rise boilers to use more energy-efficient modulating-type burners and installed dual-fuel burners, to allow the PHA

Mission Statement

"The PHA helps families and individuals with low incomes achieve greater stability and self reliance by providing safe, affordable, quality housing, and links to community services."

FACT

The PHA provides 8,000+ affordable homes to over 21,000 people.

FACT

The PHA has been an independent governmental unit since 1977.

FACT

The PHA is governed by a seven-member Board of Commissioners appointed by the Mayor and approved by the City Council.

to switch from natural gas to fuel oil when requested by Xcel Energy. Using “interruptible” natural gas reduces the PHA’s energy bills year-round and helps Xcel Energy meet the community’s demand for natural gas during peak usage periods. The PHA has installed small summer-only domestic hot water boilers to allow the large boilers to be shut down when space heating is not required. The PHA has also installed more efficient radiation pumps and variable speed drives on its air handling equipment to save energy.

Natural Energy

Community Solar Garden. The PHA set precedent to utilize clean solar energy to provide electricity for its 16 hi-rises and Central Administrative Office Building by entering into a Solar Gardens Subscription Agreement. In May 2015, the U.S. Department of Housing and Urban Development (HUD) approved the PHA’s proposal to enter into a 25 year community solar garden agreement with Geronimo Energy, a utility-scaled wind and solar energy developer, headquartered in Edina, Minnesota. The community Solar Garden program was created by the Minnesota legislature in 2013 and was approved by the Minnesota Public Utilities Commission in early 2014. Under the program, Xcel Energy customers can purchase a subscription to a Community Solar Garden in exchange for a credit on their monthly energy bill. The PHA is projected to save an estimated \$183,000 per year in energy costs. In addition to the cost savings, renewable resources will be used to offset 85% of the PHA’s annual electrical consumption in these 17 buildings.

Water Conservation

Storm Water Management. The PHA has made various “green” improvements in the course of maintaining and renovating its existing housing inventory that was built between 1952 and 1976. The largest modernization project, a \$35 million renovation of McDonough Homes, included the installation of underground storm water management storage tanks and other storm water management improvements as requested by the local Watershed District.

Unit Upgrades

The PHA also reduced energy and water usage at its 4,262 public housing apartments, by installing water-saving faucet aerators, reduced-flow shower heads, water-conserving toilets, lighting retrofits, energy efficient home appliances, weather-stripping and additional attic insulation. The PHA has also taken steps to improve indoor air quality in its family units by installing bathroom and kitchen exhaust fans that are connected to the rooms’ light switches, to ensure they will be used.

Healthy Communities

Rooftop Beehives

The PHA joined the league of urban beekeeping in efforts to increase the vulnerable bee population and protect vegetation biodiversity. The PHA collaborates with a local bee entrepreneur, Mademoiselle Miel, who oversees hives at various Saint Paul and Minneapolis municipalities and commercial agencies. Bees are amongst the best pollinators; they are vital for pollinating 70% of fruits



and vegetables humans consume (UMN-Extension Research). The W. Andrew Boss Building's CAO rooftop is now home to three queen bees and their colonies. The growing colonies are expected to yield an average of 3-9 gallons of honey this first season that will be processed through Mademoiselle Miel.

Make it Bloom: Expanding Community Gardening



The PHA residents have advocated for and engaged in community gardening. The PHA implemented its first gardens for families at the Dunedin townhomes community. Garden plots have expanded and are available to residents at all four PHA townhome communities.

The PHA hi-rises also have garden plots accessible to residents. In 2012, the first hi-rise Pilot Gardening Program was implemented at Hamline and Ravoux to make gardening accessible to all residents. Under collaboration with Saint Paul Ramsey County's Statewide Health Improvement Program (SHIP), each hi-rise was provided with four raised garden beds, vegetable plants, seeds and guidance from organizations such as, Gardening Matters and Ramsey County Master Gardeners. In 2015, the PHA has expanded this program to 88 raised garden beds at 14 hi-rises and 40 Dunedin townhome units.

Sustainable Practices

Leader in Multi-family Recycling Program in Saint Paul

The PHA was the first landlord within Saint Paul to implement a multi-family recycling program. The PHA residents have had recycling services since 1989. In April 2014, the City of Saint Paul changed to single sort recycling, and increased the types of items eligible for recycling.

Recycling Coordinators at 16 hi-rises assist in preparing the bins for collection day, distribute recycling-related literature to residents, assist disabled and handicapped residents with their recycling, and generally encourage residents to participate in the recycling program. In a typical year, the 16 hi-rises recycle almost 140 tons of materials, reducing the Agency costs for refuse hauling and protecting the environment from landfill or incineration pollutants.

FACT

In the Section 8 Program, the average tenant payment for rent plus utilities is \$320/month.

The average cost per voucher (rent subsidy plus administration) is \$715/month.

FACT

In the Public Housing Program, the average tenant payment for rent plus utilities is \$357/month.

The total federal subsidy, including operating and capital improvements, is approximately \$387/month.

FACT

The average federal subsidy for operating costs is \$255/month.

The average federal subsidy for capital improvements is \$132/month.

Partners in Opportunity

- Boy Scouts of America
- Center for Energy and Environment (CEE)
- City of Saint Paul Department of Public Works
- City of Hall of Minneapolis, Department of Environmental Services
- Cool Air Mechanical Inc.
- D & G Electrical
- District Energy Saint Paul
- Energy Center of Wisconsin
- Erickson Plumbing Heating Cooling
- Eureka
- Eutectics
- Gardening Matters
- General Electric Company
- Geronimo Energy
- Home Energy Squad
- LKPB consultant
- Mademoiselle Miel
- Minnesota Chamber of Commerce; WasteWise
- MN Green Corps
- MN Public Utilities Commission
- National Window Associates Inc.
- Nice Ride MN
- Northland Mechanical Contractors Inc.
- Presidents Council of St. Paul PHA Hi-Rises
- Ramsey County Department of Environmental Health
- Ramsey County Master Gardeners
- St. Paul-Ramsey County Department of Public Health
- TKDA Engineering
- U.S. Green Building Council
- U.S. Housing and Urban Development
- Xcel
- Youth Conservation Corps



Saint Paul Public Housing Agency

W. Andrew Boss Building
555 Wabasha Street N.
Suite 400
Saint Paul, MN 55102
Phone: (651) 298-5664
Fax: (651) 298-5666
www.stpha.org



Photography by:
Alicia Huckleby
Laurie Wachter
Steve Wewerka

Graphic Design &
Layout by:
Laurie Wachter