

Protecting Our Environment

Things Looking Up For The Green Roof

(NAPSA)—Roof gardens are not only pleasing to the eye, they are good for the environment and help buildings reduce energy costs.

In a demonstration project by the American Society of Landscape Architects (ASLA), its green roof retained thousands of gallons of storm water, reduced building energy costs by hundreds of dollars a month and significantly lowered outdoor air temperature, according to a recent report from the association. The report examined various components ranging from water and temperature monitoring to individual plant performance.

“Because landscape architects are leading in the design of green roofs across the country, it was important for us to build a demonstration project and measure the impact green roofs have on their surrounding communities,” said Nancy Somerville, executive vice president and CEO of ASLA. “The findings show that our green roof delivered significant economic and environmental benefits.”

In 2006, ASLA replaced the conventional roof on its downtown Washington, D.C. headquarters with a green roof, installing equipment to gather data on storm-water runoff, water quality and temperature.

Storm-water Runoff Prevented

From July 2006 to May 2007, ASLA’s green roof prevented 27,500 gallons of storm water—nearly 75 percent of all precipitation on the roof—from flowing into Washington, D.C.’s overburdened sewer and storm-water system. Except during repeated heavy rains, the roof only created runoff during rainfalls that exceeded 1



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inch. The water runoff itself contained fewer pollutants than typical water runoff.

Lowered Air Temperature

ASLA’s green roof lowered air temperature by as much as 32 degrees in the summer when compared to a neighboring tarred roof, helping mitigate the urban heat island effect.

“Collectively, green roofs can save billions of dollars in urban infrastructure costs, which is why more and more cities are encouraging them through tax and other incentives,” Somerville continued.

The roof also reduced the building’s energy costs—especially in the winter. Engineering analysis showed that the green roof’s extra insulation lowered energy usage in the winter by 10 percent, with a potential of 2 to 3 percent in the summer.

When designing the green roof, ASLA experimented with varying types of plants. The extreme nature of the rooftop environment allowed some to thrive while others struggled. Detailed information can be found at www.asla.org/greenroof.