

Green Roof Fact Sheet



Site of ACUA's Green Roof

Atlantic County Utilities Authority has added a green roof to one of its buildings. While green roofs have been used in other cities and countries, appreciation for their environmental benefits has been growing. The ACUA's green roof will be the first in the area and will serve as a demonstration project, allowing interested parties to get a close look at this Green Alternative to traditional roofing.

Plants and growing medium were donated by Plant Connection, which also grew the plants and oversaw the installation. The growing system, developed and manufactured by Metro Green Visions and distributed by Plant Connection, was also donated. Steven Dubner Landscaping volunteered the labor for the installation, completed September 1, 2010. The roof size is 2,900 square feet and would have cost the ACUA approximately \$72,500 to install. The site, at 1701 Absecon Blvd., sits at the entrance to the ACUA's wastewater facility in Atlantic City, NJ.

What is a green roof?

A green roof is a cover of vegetation which is installed on top of a roof. The plants used for a green roof vary from ground cover, to turf grass, shrubs, trees and even vegetable crops. The type of climate, structural capacity of the roof and aesthetic preference determine which type of vegetation is used. Green roofs can provide a natural refuge for building occupants and wildlife but also insulate the building, and reduce heating and cooling costs. Cities in particular benefit from the addition of green roofs. They reduce the "urban heat island effect" by replacing dark, heat absorbant surfaces with plants that clean the air and keep rooftop temperatures down in the summer, while absorbing and filtering stormwater. Sitting on top of the existing roof, the layers of the green roof include a membrane which provides insulation and protection, a drainage layer, a filter mat, and a soil layer, topped by the vegetation.



Installation – Flats connect at the base and tray sides are removed.



More than just soil and plants; various layers provide drainage and protection for the plants and roof.

Benefits of the Green Roof:

- Insulates the building lowering heating and cooling costs
- Helps to extend the life of the roof
- May add to the property value
- Helps to retain stormwater runoff
- Provides a natural habitat to the area's wildlife

Frequently Asked Questions:

• Does a Green Roof affect my existing roof?

The green roof actually helps to protect the existing roof. Green roofs help to block damaging UV light and will shield the roof from inclement weather.

• What are the maintenance requirements?

The ACUA's green roof will be very low maintenance. The vegetation selected is drought tolerant and grows to a height of 6-7 inches. During a prolonged period of drought some watering may be required. Green roofs should require nothing more than standard roof and drain maintenance.

• What does a green roof cost?

This type of green roof would cost approximately \$25 a square foot.

Green Roof Helpful Links:

- <http://www.greenroofs.org>
- <http://www.greenroofs.org/pdf/epa.pdf>
- <http://www.myplantconnection.com>
- <http://www.metrogreenvisions.com>



Atlantic County Utilities Authority
www.acua.com

Installation Process:



Flats are unloaded.



Flats are placed side by side.



Sides are removed from flats.



Removing sides allows plant material to grow together.



Roof is completed.

