

Pocono Forest & Waters Conservation Landscape SUCCESS STORY

By: Center for Landscape
Design & Stewardship

Community Garden Education Shelter (Green Roof Installation)

SUMMARY

This project involved the construction of a 20'x 20' education shelter within the Butler Township Community Garden in Drums, which will be planted with a green roof. When complete, this structure will provide shade and shelter for small groups attending CLDS education workshops and children's summer camps. It will also demonstrate green roof design and construction techniques that people can apply to their own home or other construction projects. Green roofs reduce the amount of stormwater runoff from buildings. They also reduce the amount of energy needed to moderate the temperature of a building as roofs are the site of the greatest heat loss in the winter and the hottest temperatures in the summer.



A view of the roof interior showing structural framing and cupola. The tongue and groove wooden planks will demonstrate that the green roof does not leak.

CHALLENGE

Most people have heard of "green roofs," but few people have actually seen one. Even fewer people understand how they function or how they are constructed. With all the environmental benefits associated with green roofs, we figured the best way to promote them was to build one as a demonstration feature.

PARTNERSHIP IS KEY

Ron and Joann Gallagher, Sugarloaf PA. Ron designed and built the shelter with all donated time and labor.

Cargill, Inc., Hazleton. Donated \$2,000 towards shelter construction.

DeJesus Family Chiropractic, Sugarloaf. Donated \$1,000 towards shelter construction.



SOLUTION

This project began in 2012 with the help and leadership of Ron Gallagher, who is the owner of Life Expression Wellness Center in Sugarloaf, PA. Ron is passionate about green roofs and ecological design in general. His wellness center sports the largest green roof in Northeast Pennsylvania. Ron wanted to share his knowledge and expertise of green roofs with the public, and so he offered to help build a demonstration structure within the Butler Township Community Garden to show people that green roofs are not only ecologically sustainable, but also beautiful and functional. The CLDS was an eager partner.

RESULTS

We broke ground for the shelter in the summer of 2012. The first year of construction involved pouring the footers for the columns, which are sized to support the additional design load that green roofs require, and erecting the beams and joists. This past summer (2013) resulted in the actual roof construction (2"x 6" tongue and groove sheathing) as well as the cupola, which is designed to demonstrate eco-design construction concepts for natural air-conditioning and improved ventilation. While we had hoped to install the green roof this year, the schedule has been pushed back to 2014 due to the recommended spring planting season for the sedum plugs. Construction costs have also slightly exceeded our original estimates due to several design improvements, so additional fundraising is in progress. We anticipate the roof to be complete by the summer of 2014. An interpretive sign will also be installed to explain the green roof's functionality, environmental benefits, and construction techniques.

Contact

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