



Green Infrastructure & Stormwater Management CASE STUDY

Greenfield Elementary School

Location: 2200 Chestnut St., Philadelphia, PA
Client: Greenfield Elementary School
Design Firm(s): Meliora Environmental Design
Landscape architect/Project contact: Glen Abrams
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Project Specifications

Project Description: The Greening Greenfield project consists of stormwater management and landscape improvements, including rain gardens, pervious pavers, orchards, and porous rubber safety play surface which divert rainwater from asphalt to recharge the rain garden instead of draining into the combined sewer system. The project partners included parents, teachers, students, alumni and school administrators, with the help of local design experts, the school district and the Philadelphia Water Department.

Project Type:

Institutional/Education

A retrofit of an existing property

Design features: Rain garden, bioswale green roof, porous pavement, tree plantings and orchards.

This project was designed to meet the following specific requirements or mandates:

Local ordinance

Impervious area managed: 5,000 sq. /ft. to 1 acre.



Photo Credit: Paul Rider

Amount of existing green space/open space conserved or preserved for managing stormwater on site: Not applicable.

The regulatory environment and regulator was supportive of the project.

Did the client request that other factors be considered, such as energy savings, usable green space, or property value enhancements?

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: \$100,000-\$500,000 (Public funding: Federal, State, and Local)

Was a green vs. grey cost analysis performed? No

Number of jobs created: Not available

Job hours devoted to project:

Planning and Design:

Construction:

Annual Maintenance: 55 hours

Performance Measures

Stormwater reduction performance analysis; Philadelphia designs their systems to manage the first inch of every storm from the drainage area. The metric used is acre-inches. This project manages .37 acre-inches.

Additional Information

Links to images:

http://www.phillywatersheds.org/img/ASLA/Greenfield_Elementary_Credit_%20Paul%20Rider.JPG