



Green Infrastructure & Stormwater Management CASE STUDY

Private Residence

Location: Far Hills, NJ

Client: Anonymous

Design Firm(s): Davies Associates Landscape Architects, LLC

Landscape architect/Project contact: Bruce Davies, ASLA & Charlie Iuliano, ASLA

Email: b.davies@bjdavies.com

ASLA Chapter: New Jersey

Project Specifications

Project Description: When our clients purchased this residence in Far Hills, New Jersey, they acquired a large retention basin with the house and yard. All of the storm sewers from the neighborhood streets were piped into this muddy basin, which then drained slowly into the forested swampland behind the residence. During every rain event the basin filled up with brown muddy water.

Davies Associates Landscape Architects, LLC was hired to help clean up the basin's water and make the site more attractive. In collaboration with an excellent contractor, Stonegate Landscape Professionals, headed by Michael Murr, CNLP and Charles Iuliano, ASLA, we transformed the basin into an attractive and sustainable landscape feature that was part of the larger stormwater management system on-site. The Client was very excited and engaged by this approach.

The pond was cleaned up and three floating fountains were added to aerate the water. The floating islands were covered with vegetation that was designed to provide biofiltration for the basin. The plants were purposefully selected because their deep roots would extend through the islands' bases into the water. The pond edges were planted with perennials and shrubs suitable for pond edge planting, and to stabilize the pond's edges.

The project was phased in over a three year period and completed in 2008. It has since proven to be a successful example of how a regenerative approach to stormwater management can also result in a beautiful landscape.

Project Type:

Single family residential
A retrofit of an existing property

Design features: Bioretention facility.

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

Local ordinance

Impervious area managed: 1 acre to 5 acres

Amount of existing green space/open space conserved or preserved for managing stormwater on site: 1 acre to 5 acres

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? The clients were trying to improve their property values and they succeeded.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: \$50,000-\$100,000 (Public funding: None - private project)

Was a green vs. grey cost analysis performed? No

Cost impact of conserving green/open space to the overall costs of the site design/development project: This project added greatly to the value of the property.

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Did not influence costs.

Number of jobs created: 4

Job hours devoted to project:

Planning and Design: 40 hours

Construction: 100 hours

Annual Maintenance: 30 hours

Performance Measures

Stormwater reduction performance analysis:

The basin was designed by a civil engineer firm to detain a quantity of run off. Our office worked on stormwater quality through the biofiltration process.

Community & economic benefits that have resulted from the project: Enhancement of existing property values improved filtration of storm run off.

Additional Information

Links to images: Images Attached To E-Mail