



Green Infrastructure & Stormwater Management CASE STUDY

11th Street Rain Garden Pilot Project

Location: St. Louis, MO

Client: The Partnership for Downtown

Design Firm(s): HOK

Landscape architect/Project contact:

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Project Specifications

Project Description: This project is a prototype installation of an urban streetscape micro-detention cell. The project is meant to serve both as a pilot for further rain garden development in downtown St. Louis and as a demonstration of a new modular precast concrete system for constructing rain gardens, designed by a landscape architect.

Project Type:

Transportation corridor/streetscape

A retrofit of an existing property

Design features: Bioretention facility, rain garden, and curb cuts.

This project was designed to meet the following specific requirements or mandates: Not applicable

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

Amount of existing green space/open space conserved or preserved for managing stormwater on site: New green space (about 150 ssq/ft) was created.

The regulatory environment and regulator was indifferent to the project.

Did the client request that other factors be considered, such as energy savings, usable green space, or property value enhancements? No

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: >\$10,000 (Public funding: Not available)

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: Not applicable

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Not applicable

Number of jobs created: 0

Job hours devoted to project:

Planning and Design: 80

Construction: 80

Annual Maintenance: 30

Performance Measures

Community & economic benefits that have resulted from the project: As a pilot demonstration, the project itself provides little in this area. The purpose of the project was to generate interest and support within the community, leading to more widespread adoption of rain gardens and LID principles.

Additional Information

Links to images: <http://hoklife.com/2010/11/18/freno-implementing-the-urban-rain-garden/>

<http://www.downtownstl.org/AboutUs/ImprovementDistrict/ServicesandInitiatives/RainGarden.aspx>

<http://frenosystems.com/>

As a demonstration project for the product (Freno), the intent was to illustrate the cost and time saving benefits of using a precast system for the construction of urban rain gardens. The positive result showed that a two person crew could successfully install the rain garden in approximately two days.