



Green Infrastructure & Stormwater Management CASE STUDY

Barada Apartments Bioretention Area

Location: Syracuse, NY

Client: Syracuse Model Neighborhood Corporation, Inc.

Design Firm(s): Natural Systems Engineering, PLLC

Landscape architect/Project contact: Kyle E. Thomas

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Project Specifications

Project Description: Converted an area of underutilized tarvia between two buildings to the west and an apartment building/parking lot to the east into a bioretention area, and regraded the site to discharge runoff to the bioretention area. Roof leaders from the adjoining buildings were disconnected from the sewer and connected to the bioretention area. The project site now no longer discharges runoff to the combined sewer system (CSS), but to the bioretention area instead, with only extreme storm events resulting in overflow to the CSS.

Project Type:

Mixed use

A retrofit of an existing property

Design features: bioretention facility and infiltration measure (i.e. dry well).

This project was designed to meet the following specific requirements or mandates: To meet funding criteria and the Combined Sewer Overflow Consent Judgment.

Amount of existing green space/open space conserved or preserved for managing stormwater on site: 5,000 sq/ft to 1 acre

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? Usable green space.

Cost & Jobs Analysis

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

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: Project was a retrofit for the express purpose of implementing GI. Therefore this is not applicable.

Number of jobs created: 2

Job hours devoted to project:

Planning and Design: 50

Construction: 350

Annual Maintenance: 15

Performance Measures

Stormwater reduction performance analysis:

100% of 1-year, 24-hour event.

Community & economic benefits that have resulted from the project: Green job training and aesthetic improvements to site.

Additional Information

Links to images: www.naturalsystemsengineering.com Photos to be posted after plants and grass seed is established this Spring.

