



# Green Infrastructure & Stormwater Management CASE STUDY

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## Heron Park

**Location:** 2nd and Reed Streets, Philadelphia, PA

**Client:** Philadelphia Department of Public Properties

**Design Firm(s):** Langan

**Landscape architect/Project contact:** Jayne Spector, ASLA, LLA, LEED-AP

**Email:** [jspector@langan.com](mailto:jspector@langan.com)

**ASLA Chapter:** Pennsylvania/Delaware

## Project Specifications

**Project Description:** Heron Park sets a new standard for revitalizing and redeveloping neighborhood parks and playgrounds in our aging cities. It integrates sustainable stormwater management practices with a vibrant and engaging recreation experience. Many of the design solutions implemented for this park have made their way into Philadelphia's criteria for other park designs.

### Project Type:

Open space - park

Part of a redevelopment project

**Design features:** Bioretention facility, rain garden, bioswale, porous pavers, porous asphalt, porous safety surface, and removing impervious surfaces to create planting areas for native trees.

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

Local ordinance

**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:** 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?** The City of Philadelphia Department of

Public Properties needed to create a usable, engaging playground/park and sprayground at the site as well as basketball courts.

## Cost & Jobs Analysis

**Estimated Cost of Stormwater Project:** \$100,000-\$500,000 (Public funding: 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:** The project site consisted of all a swimming pool, basketball courts and asphalt playground areas prior to redevelopment. Removing impervious surfaces and installing rain gardens, vegetated swales, planting areas, a new pervious asphalt basketball court and pervious playground safety surfacing over gravel holding areas increased development costs due to demolition, disposal, installation of gravel and biosoil beds and planting costs.

**Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)?** Significantly increased. Green space had to be created on this site, which was all previously paved with impervious materials. Additional costs also accrued due to stormwater BMPs engineering and an intensive local permitting process with the Philadelphia Water Department.

**Number of jobs created:** 10 Construction jobs for approx. 4 months

### **Job hours devoted to project:**

Planning and Design: 600

Construction: Unknown

Annual Maintenance: Unknown

## Performance Measures

**Community & economic benefits that have resulted from the project:** The greener playground has encouraged the construction and renovation of existing residences, that was underway in this gentrifying neighborhood before the park was redeveloped

## Project Recognition

PA/ DE ASLA - Honor Award; PA ACEC - Diamond Award; Villanova U./ Temple U/ PWD - Sustainable Stormwater award