Green Infrastructure & Stormwater Management
CASE STUDY

Richard H. Fulton Complex

Location: Second Ave South, Nashville, TN
Client: Metro general Services
Design Firm(s): SSOE,Inc. and Ashworth Environmental Design, LLC
Landscape architect/Project contact: Carol Ashworth, ASLA
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ASLA Chapter: Tennessee

Photo: Ashworth Environmental Design, LLC

Project Specifications

Project Description: This was a pioneer project for the city showcasing low impact development (LID) methods and is used as a demonstration site for Metro planning and codes. The parking areas feature native plants, permeable asphalt and bioretention gardens.

Project Type:
Government complex
A retrofit of an existing property

Design features: Bioswale, porous pavers, curb cuts, and permeable asphalt.

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? Wanted it to be a show piece for the new stormwater standards that were adopted in 2006.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: $1,000,000-$5,000,000 (Public funding: Local)

Was a green vs. grey cost analysis performed? The site contraints did now allow space for conventional detention so a new approach was needed.

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Increased due to additional undrain systems needed because of underlying bedrock and contractors unfamiliarity with pervious paving at the time.

Number of jobs created: Not available

Job hours devoted to project:

Planning and Design: 2,100
Construction: 3 months
Annual Maintenance: Not available

Performance Measures

Stormwater reduction performance analysis:

Everything up through the 25-year storm was retained on site and released at a pre-developed flow. Up through the 2-year storm was treated for water quality and shown to have 80% of the TSS removed.

Community & economic benefits that have resulted from the project: Increased overall aesthetic of the property as it was redeveloped to have a “campus” feel. The campus is LEED certified.

Project Recognition

NPT Volunteer Gardner July, 2009 episode 1803 and Tennessean Sept. 20, 2009 and Cumberland River Compact, Building Outside the Box-Green Parking Workshop June 2008.

Additional Information

Links to images: http://www.ashworthenvironmental.com links are on website.