Green Infrastructure & Stormwater Management
CASE STUDY

Shops of Grand River

Location: Leeds, AL
Client: Daniel Corporation
Design Firm(s): Environmental Design Studio, Inc. , Walter Schoel Engineering Co.
Landscape architect/Project contact: Duane Pritchett, Walter Schoel III
Email: duane@edsincweb.com
ASLA Chapter: None

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Project Specifications

Project Description: Retail Outlet Mall. The walkways of the interior spaces drain to rain gardens. The rain gardens filter stormwater and will ultimately include interpretive signage to educate clientele on the various methods used to protect the watershed. Portions of the parking lot drain to bioswales at the perimeter of the lot. Most all stormwater ultimately are directed to biodetention basins with wetland plantings on the banks and littoral shelves. Biodetention ponds also supply water to drip irrigation. MSE walls were utilized to reduce grading and provide an average 200-foot wide buffer adjacent to the Cahaba River.

Project Type:
Commercial
Part of a new development

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

This project was designed to meet the following specific requirements or mandates:
State statute developer/client preference

Impervious area managed: greater than 5 acres

Amount of existing green space/open space conserved or preserved for managing stormwater on site: greater than 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? Yes. Xeriscape planting design for water use reduction and aesthetics.

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? No

Cost impact of conserving green/open space to the overall costs of the site design/development project: Unknown

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Significantly increased.

Number of jobs created: 500 full-time and part-time

Job hours devoted to project:

Planning and Design: 1 year
Construction: 15 months
Annual Maintenance: Not available

Performance Measures

Stormwater reduction performance analysis:
Data not available

Community & economic benefits that have resulted from the project: The project will include public to access the Cahaba River.

Project Recognition

Cahaba River Society, Conservation Development Award; Audubon International Certified Signature Sanctuary

Additional Information

Links to images: www.shopsofgrandriver.com