Green Infrastructure & Stormwater Management CASE STUDY

Vestavia Soccer Complex

Location: Vestavia Hills, AL
Client: Vestavia Parks and Recreation Board
Design Firm(s): Holcombe Norton Partners
Landscape architect/Project contact: Ed Norton, ASLA
Email: ed@hnpsiteplan.com
ASLA Chapter: Alabama

Project Specifications

Project Description: A four full sized synthetic soccer field park with associated parking, maintenance facility and restroom/concession building.

Project Type:
Open space - park
Part of a redevelopment project

Design features: Stormwater was managed through the use of an existing 50-year old depression remaining from an earlier mining operation. The depression is vegetated with mature trees. System also used series of very old strip pits which are completely vegetated with mature native vegetation.

This project was designed to meet the following specific requirements or mandates:
State statute, county ordinance, 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? No.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: $50,000-$100,000 (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: Reduced cost of stormwater management.

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Significantly reduced costs (10% or greater savings).

Number of jobs created: 0

Job hours devoted to project:

Planning and Design: 60
Construction: 120
Annual Maintenance: 0

Performance Measures

Stormwater reduction performance analysis:

99% retained in 2-year storm. 100% of runoff into storm system is retained. A small area of surface runoff is not captured by the on-site system due to topography.

Community & economic benefits that have resulted from the project: Property lies within the watershed of drinking supply for Birmingham. Elimination of runoff from parking and other impervious reduces the potential for water quality issues. Stormwater management system eliminated potential need for additional storm water infrastructure by the city saving money.