



Green Infrastructure & Stormwater Management CASE STUDY

St. Vincent's One-Nineteen Health & Wellness Facility

Location: Hoover, AL

Client: St. Vincent's Hospital System

Design Firm(s): Macknally Ross Land
Design

Landscape architect/Project contact:
Lea Ann Macknally, ASLA

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ASLA Chapter: Alabama



Project Specifications

Project Description: As a health & wellness facility, St. Vincent's Health Services wanted their new facility to reflect

the same philosophies throughout the site design as they were promoting within the building. The site is also adjacent to Patton Creek, which is a major feeder to Lake Purdy. This lake is the water supply source for most of Jefferson & Shelby counties. Due to parking requirements for the facility, we were having to accommodate +/- 11 acres of parking on the site. Focusing the development on previously cleared land and using geological studies, we designed all parking runoff to be treated via bioretention areas. We utilized a mix of bioretention areas that were heavily vegetated, as well as grass filter strips.

Project Type:

Other (please specify)

Part of a new development

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

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

Local ordinance, 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? The client was

sensitive to the fact that the property being developed was in the Lake Purdy watershed. Wanting to be "good neighbors", they started off with the philosophy that the site development would benefit others.

Cost & Jobs Analysis

Estimated Cost of Stormwater Project: \$100,000-\$500,000 (Public funding: Not available)

Related Information: We have this information, but we have to pull from stored records. This is in process. As the first bioretention system of it's size, we went through an extensive pricing exercise with the client & general contractor. We compared the proposed system to a traditional system during the design phase and we have actual construction costs from after the project was bid. Please contact us if further information is needed.

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: We were able to minimize the site clearing and earthwork costs. We also had the opportunity to work closely with the general contractor and landscape contractor throughout the design and construction. As a result, these contractors have also developed a reputation for their experience in the installation of bioretention areas. The trickle effect that we have seen locally is lower costs on materials due to availability and lower costs on bid jobs, as contractors have become more familiar with the work.

Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)? Slightly reduced costs (1-9% savings).

Number of jobs created: We will check with the contractor for this information.

Job hours devoted to project: Not available

Planning and Design: Not available

Construction: Not available

Annual Maintenance: Not available

Performance Measures

Community & economic benefits that have resulted from the project: Other sites developed within the same area have been held to standards established by the Health & Wellness Facility, including a senior living facility constructed four years after completion. The City of Hoover St. Vincent's have recognized for their efforts in "green development" on the site and in national publications for healthcare facilities. Several regional stormwater agencies, universities, and special interests groups tour the site to look at the bioretention area every year.

Project Recognition

City of Hoover Tree Preservation / Reforestation Award; Cahaba River Society's Blue Green Innovation Award

Additional Information

Links to images: <http://www.macknallyross.net/gallery/stvincents.php>