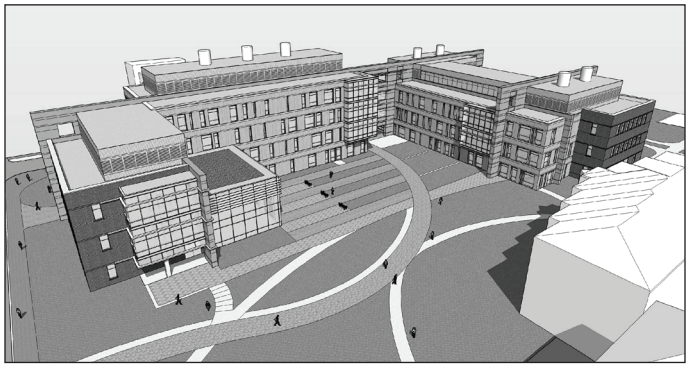
UNIVERSITY OF DELAWARE

University of Delaware Stormwater Management Design for Integrated Science & Engineering Building and Utility Plant

Newark, Delaware

Ayers Saint Gross



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top: Schematic plan view of site with integrated green space
bottom: View from southwest of building and plaza

The integrated stormwater design solution used the latest green technology practices for two high-profile redevelopment projects.

As part of a multidisciplinary design team, Biohabitats provided stormwater management analysis and design services for two adjacent high-profile redevelopment projects at the University of Delaware. The stormwater design showcases state-of-the-practice sustainable site elements while meeting all regulatory requirements.

The five-acre redevelopment site requires both water quality and water quantity management and drains to the sensitive White Clay Creek watershed. A combination of green infrastructure best management practices (BMPs), including bioretention cells, green roofs, and rainwater harvesting, are integrated throughout the site. These BMPs will promote filtering and uptake of pollutants by native vegetation, beneficial reuse of harvested rainwater, and infiltration.

In addition to managing water quality and quantity, the stormwater design provides multiple site functions. Ecological and educational amenities include habitat creation, plant diversity, heat island reduction, aesthetic enhancement, and water conservation. Re-use of harvested rainwater in the utility plant helps to meet stormwater requirements and reduces the demand for potable water. The stormwater design also contributed to the goal of LEED Silver certification.

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