
HOWARD UNIVERSITY

Howard University Law School Stormwater Retrofit

Washington, D.C.



A parking lot retrofitted with green infrastructure improves habitat and water quality in the Howard University Law School in Washington, DC's densely urban Forest Hill neighborhood.

SERVICES

Assess
Plan
Engineer & Design
Build
Regenerate

The Howard University Law School parking lot is adjacent to a Soapstone Creek tributary within the Rock Creek watershed. During large storms, untreated runoff from the 1.6-acre parking lot and its surrounding lawn was continuously flooding an inlet in a corner of the lot and causing over-sedimentation in the area. In addition, erosion caused by the runoff created a six-foot gully, which was serving as an expressway for polluted stormwater to enter into the tributary, degrading water quality and habitat downstream.

Biohabitats worked with the University to retrofit the parking in order to slow down and treat stormwater and prevent further erosion and stream contamination. The retrofit directs stormwater into nature-based features that naturally slow it down, allow sediment to settle, and help filter pollutants. The features consist primarily of 4,000+ square feet of bioretention cells, which retain the stormwater and allow it to slowly seep into the ground, where its excess nutrients are taken up by the roots of native plants. The bioretention cells, which visually divide the parking lot into two vertical sections, feature draught tolerant native plants that can thrive in temporarily flooded conditions with minimal maintenance. The retrofit also utilizes a 5,500 square feet of permeable pavers and conversion of 0.5 acres of turf to a native plant meadow to further manage stormwater.

The retrofit treats up to 45,000 gallons of stormwater for every 1.2 inch design storm event. With its palette of native trees, herbaceous plants, and no-mow, native grasses, it also adds beauty, expands campus greenspace, and helps to reduce urban heat island effect.

As a secondary benefit, Biohabitats reused the soil generated from the excavation of the bioretention and permeable pavers was to fill in a heal the eroding channel at the corner of the parking lot caused by stormwater overflows.