PARKS AND PEOPLE FOUNDATION

Stormwater Planning & Design for Baltimore Community ToolBank

Baltimore, Maryland







hen Baltimore area non-profits need equipment for volunteer construction and greening projects, they turn to the Baltimore Community ToolBank, a lending library of high-quality tools for charitable organizations.

The Parks and People Foundation, which helped found the ToolBank, wanted to improve stormwater managment at the site as a way to further community greening and improve water quality in Baltimore Harbor.

Precedent-setting systems improve stormwater management, local ecology, and natural beauty in urban, industrial areas.

Biohabitats developed a concept plan and design consisting of two separate stormwater treatment systems. The first features two elevated bioretention planters that treat rooftop runoff while also providing seating for visitors, habitat for birds, bats, and pollinators, and natural beauty in an otherwise hard-edge, industrial district. Since being constructed in the spring of 2014, the system has treated approximately 12,000 square feet of rooftop runoff.

The second system, known as the "stormwater factory," captures rainwater from the ToolBank's 40,000 square foot rooftop—water that used to flow directly, unfiltered, into storm drains in a back alley and ultimately on to the Inner Harbor—and uses it for tool washing and the irrigation of native plants in raised planters. The system consists of a series of cisterns and wetland planters. The contents of the

planters further filter the stormwater before it flows into the storm drain, and the planters themselves provide attractive seating.

The design team's solution to the challenges posed by subsurface conditions was to create above ground treatment methods that are simple, modular, and relatively inexpensive, so they can easily be applied to other industrial facilities to meet stormwater regulatory requirements.

The ToolBank represents a new model for stormwater management in industrial zones, which contribute a significant amount of runoff to the Chesapeake Bay.

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