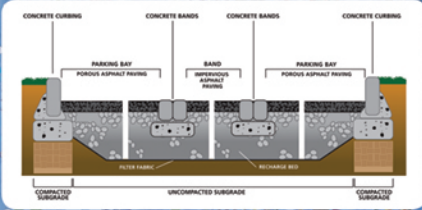


OVERBROOK ENVIRONMENTAL EDUCATION CENTER



POROUS PAVING

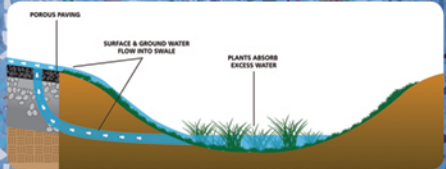
conservation through water flow control



The parking bays on the east side of the parking lot are Pervious. This means that water drains directly into the ground.

SWALE

runoff water management system

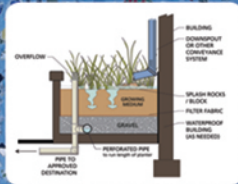


A swale is a contoured stretch of low-lying, shallow or depressed land that holds water and allows it to gradually infiltrate back into the soil. A swale also has a concave shape that allows water to run down the slope of it.

FLOW-THROUGH PLANTERS

captures and immediately uses roof rainwater

Flow-through planters are designed to capture rainwater via downspouts from the adjacent roof. They direct the water to the planter box. Excess water is drained away by an overflow pipe.



The planters run the full length of the building.

Want to build your own Flow-through Planter Box? Download how-to instructions to your smart phone right now!



PHILADELPHIA ORCHARD PROJECT

farm-fresh fruit grown in the city

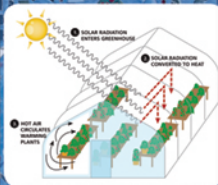
The Philadelphia Orchard Project is an urban edible eco-orchard that mimics the environment of the natural forest. There is groundcover provided to suppress weeds, retain moisture and support an understory—layer of pollinator wildlife.



PENN STATE EXTENSION HIGH TUNNEL

an energy free, extended growing season

A Penn State Extension High Tunnel is a season extending crop growing system. The unit is simply made of aluminum pipe framing and covered with flexible roll-up plastic on its sides. The plastic covering supports a thermal increase inside the unit that allows plants to be started in early spring and can be grown later into the fall.



High Tunnels are passive systems that do not require the electrical heating or ventilation that are common in traditional Green Houses.

Want to read the story of four greenhouse and its construction? Check it out on your smart phone right now!



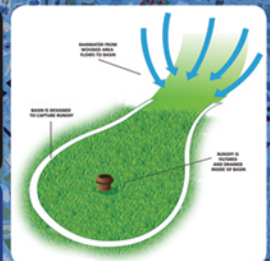
PENN STATE EXTENSION HIGH TUNNEL



BIORETENTION BASIN

captures and filters rainwater runoff

A Bioretention Basin is a drainage system of multi-layered rock, under a thin layer of soil. The basin captures, filters and cools warm surface water runoff and returns it back to the earth.



Want to learn more about storm water management? Watch a video on your smart phone right now!

JASTECH Development Services is entering its tenth year of teaching environmental studies to Philadelphia's students. Curriculum inspired by Overbrook's natural history, development patterns, and industrial past is actively changing how urban youth view their surroundings.

The Overbrook Environmental Education Center (a division of JASTECH) is located at 6130-50 Lancaster Avenue in the Schuylkill watershed. This center site is approximately 0.83 acres, with earth disturbance of 14,615 ft². The site is designed to reduce non point source pollution (NPS) and to demonstrate stormwater best management practices (BMPs) in a highly urbanized area.

Design priorities for the project are consistent with the Philadelphia Water Department's Combined Sewer Overflow (CSO) control project that calls for the increased installation and use of on-site pervious surfaces, vegetation planting and installation of best practices for stormwater harvesting. The OEEC project's Stormwater Retention Systems includes a pervious parking lot, pervious pavers, swale, bioretention basin, flow-through planters, plants, trees, shrubs and expanded soil cover.

Built-in Learning Opportunities

Both the center and the landscaping were designed with built-in opportunities for children and adults to learn about sustainability. Students use the center to study stormwater management and runoff from different parts of the parking lot surfaced with a combination of porous pavers and porous asphalt.

The wooded slope at the back of the site is restored as an Urban Forest with multiple layers of native planting to teach homeowners about native landscapes and offer new models for landscaping backyards and community gardens.

Development Team

Design: Todd Woodward – SMP Architects (formerly Susan Maxman & Partners), Tavis Dockwiler Viridian Landscape Studio (formerly Rolf Sauer & Partners), F.X. Browne, Inc and Michael T. Paul, P.E.

Construction Management: Turner Construction • Contractor: Cecil Preston Construction