

Site 4: Shelly Square Shopping Center

BMPs:

Underground infiltration/
detention basin
Sediment forebay
Wetland area

Address: 2700 Shelly Road
(at the intersection with PA Rt. 63)
Harleysville, PA 19438

Property owner: Spring Hill Realty

Website: www.springhillrealtyinc.com

Watershed: Perkiomen Creek

Shelly Square is a 80,000 square foot retail and professional center developed by Spring Hill Realty of Harleysville, PA. Construction began in the summer of 2005 and the stores were open to the public by September 2006.

Shelly Square is unique in that it utilizes a stacked approach to stormwater management. This commercial development showcases an innovative way to manage stormwater runoff while maintaining natural, environmental and aesthetic qualities. The stormwater BMPs fit well with the surrounding landscape, and enhance the shopping center's appearance.

Stormwater runoff from the fifteen stores and the associated parking area is collected in an underground infiltration and detention basin, and then through a series of water quality Best Management Practices. The implementation of these water quality BMPs help protect the Perkiomen Creek, which flows through the south side of the property.



Planning your visit: Visitors are welcome to view the stormwater management BMPs at any time. The forebay and wetland mitigation areas are located at the western side of the plaza. For the best view, enter the parking lot from Shelly Road.

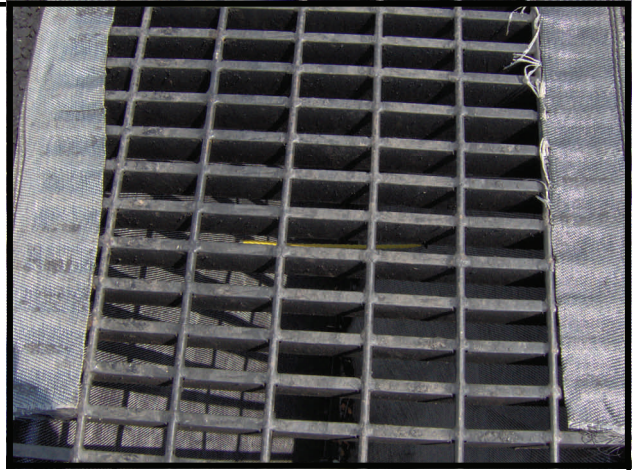
Contact Info:

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Parking: Parking is available in the Shelly Square Shopping Center parking lot.

A Treatment Train of BMPs

The stormwater runoff from Shelly square drains to a combination of BMPs, including an underground detention basin, and a forebay for overflow. This system drains into a wetland mitigation area that allows for further detention and infiltration.



(1) Underground Infiltration Basin

The rain water that falls on the parking area at Shelly square drains into an underground infiltration basin. Located under the parking lot, the basin consists of perforated pipes with stone trenches underneath to allow for infiltration of the stormwater.

(2) Sediment Forebay

Overflow and parking lot runoff that is not infiltrated from the underground basin is diverted into a sediment forebay. The forebay traps excess sediments from the stormwater runoff before entering the wetland mitigation area. Once sediments fill the forebay, they can be easily removed, preventing the disruption to the naturalized wetland area.



(3) Wetland Mitigation Area

Before the stormwater enters Perkiomen Creek, it flows gradually through a wetland mitigation area, where any remaining pollutants can be deposited or used by the wetland vegetation. This wetland provides added benefits by creating natural habitat for plants and wildlife.

The mitigation area was planted with native wildflowers, Bulrushes, and Sedge species in 6 inches of organic topsoil. Trees and shrubs, including Box Elder, Red Maple, Black Willow, Button Bush, and Smooth Elder were also planted on the island and along the berms. A natural spring also provides additional groundwater hydrology to the wetland. Natural volunteer plants have established themselves in addition to the planted vegetation.

