



GREEN STREETS | GREEN JOBS | GREEN TOWNS INITIATIVE

The Green Streets, Green Jobs, Green Towns Partnership (G3) aims to stimulate the green jobs market and enable families to work where they live and play. Small to mid-sized communities can boost their local economies and protect water resources through the use of watershed planning, design and construction of stormwater best management practices.

Walnut Street Reconstruction and Streetscape Project – Delmar, MD *and* DE

The small town of Delmar undertakes the ideal green street project, incorporation of green infrastructure into a necessary gray infrastructure project.




The Walnut Street project, in the small town of Delmar, shared across the Maryland-Delaware line, serves as an ideal demonstration of green infrastructure: The Town needed to tackle major roadway reconstruction and infrastructure work, and because the demolition needed to occur, the Town decided to “put the street back together” in a green way at little additional construction cost but big savings on stormwater management down the road.


were provided by the town itself as part of the infrastructure program. The design was completed in 2012, street construction began on November 5, 2012, and was completed in May 2014.




 1900 lf of green roadway

 1590 sf of bioretention

 475 native plants

 4 filterra units installed

 2 community meetings

The project incorporates the replacement of failing utilities beneath the roadway, replacement of failing pavement and incorporation of safety elements by including sidewalks (compliant with the Americans with Disabilities Act). The project integrates stormwater features such as bioswales and bioretention areas that incorporate local foliage to provide a sustainable nutrient and pollutant removal system.

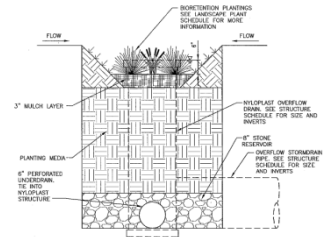
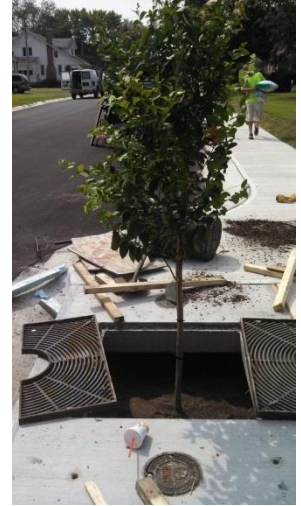
The grant providing by the G3 program supported the design costs, and the construction costs



PROJECT ELEMENTS

- **Impervious pavement removal**– Removal of pavement – about 8 feet of roadway to narrow it – allows installation of other practices that treat stormwater.
- **Bioretention curb extensions and bioswales**– These features filter and reduce stormwater runoff, allowing it to infiltrate into the ground, before it enters into the storm drain system.
- **Tree pits and expanded tree wells**– Extended tree pits and wells into the street both reduces impervious surface cover and also reduces street area, narrowing the road and slowing traffic, increasing likelihood of pedestrian use.
- **Gravel filters** – Filterra systems and gravel filters slow water and collect pollutants on media that is replaced periodically.
- **Increased Urban Tree Canopy**– In urban areas a single tree can intercept from 500 to 4,000 gallons per year. Even young, small trees help, capturing 50 gallons per year. Trees not only treat stormwater, they provide a host of other benefits, including energy cost reduction in both summer (shade) and winter (proper placement can result in the reduction of energy use by 20-50%), aesthetics, property value enhancement, business traffic enhancement, and health benefits.

G3 Grant Awarded: \$18,950
Match Contribution: \$51,610
Status: Completed May 2014



BIORETENTION SWALE



Delmar, “the little Town too big for one state,” is actually two incorporated towns: Delmar, Delaware, governed by a Mayor and four council members is located in Sussex County. Delmar, Maryland, governed by a Mayor and four commissioners, is located in Wicomico County. The Towns share a central administration, police department, public works department, and sewer/water facilities that are jointly owned and operated.

Together, both sides of this Town worked on the green street, which will be the kickoff to the next generation of green activities in the town. Previously, the two sides of Delmar worked together to upgrade the wastewater treatment facility to include the addition of biological and enhanced nutrient removal systems that effectively reduce pollutants-nitrogen and phosphorus loadings from entering the waterways that drain into the Chesapeake Bay.

In other areas of the community, both the elementary and middle/high schools have long been pursuing outdoor environmental activities for their students, sending hundreds of students on field trips to learn about watershed issues and bring lessons back to the schools.



Project Partners: Town of Delmar,;Davis, Bowen, and Friedel, Inc; Chesapeake Bay Trust,;MD Department of Natural Resources;U.S. Environmental Protection Agency.

For additional information: visit www.epa.gov and www.cbtrust.org.