

U.S. COAST GUARD SAFEGUARDS CHESAPEAKE BAY

Environmentally Friendly BioMod[®] Planters Baltimore, MD

On April 21, 2017, Oldcastle Infrastructure co-sponsored an Earth Day educational fair at the U.S. Coast Guard's shipyard in Baltimore, Maryland. This marked the 47th Earth Day celebration of its kind since 1970.

The Coast Guard hosted the Earth Day fair to help educate the community and reduce pollution in the Chesapeake Bay from stormwater runoff. As part of the festivities, the Coast Guard purchased three "green" Low-Impact Development (LID) stormwater filtration planters for their campus, thereby protecting the local environment, its members and the community they serve.

Planning for the planters began in January 2017, when the Coast Guard approached Oldcastle Infrastructure for ideas on how to treat stormwater runoff on such a tightly packed campus with many acres of impervious hardscape.

After discussions and in support of the Coast Guard's Earth Day celebration, Oldcastle Infrastructure manufactured and supplied three BioMod[®] precast concrete stormwater retention and filtration units. The BioMod planters allow for the treatment of a larger volume of stormwater runoff in a smaller footprint than traditional rain

DESIGN & CONSTRUCTION TEAM

Client

United States Coast Guard

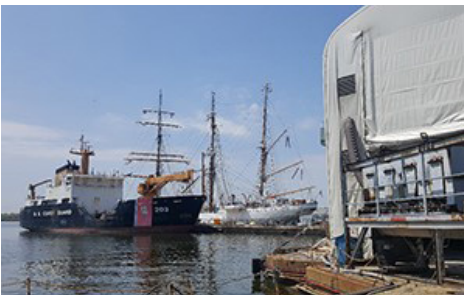
Contractors

Skookum Contract Services, Inc.

Manufacturing Facility

Oldcastle Infrastructure
Fredericksburg, VA & Edgewood, MD

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gardens. These environmentally friendly units remove pollutants via filtration while assisting in the Coast Guard's compliance with the nt (MDE) to mitigate rainwater pollutants.

Oldcastle Infrastructure's Edgewood, Maryland and Fredericksburg, Virginia facilities provided two at-grade precast concrete bioretention planters and one above-grade planter designed to capture, retain and filter stormwater runoff. One 4-foot by 24-foot by 6-foot bioretention planter was installed near Parking Lot #20 to collect runoff from nearby streets and parking areas. The runoff was diverted to the retention system by means of a culvert designed by the site contractor.

A second planter measuring 4-foot by 25-foot by 6-foot was placed adjacent to Building #40 for retaining and filtering stormwater from the roof. This process is called "rooftop disconnection" where the stormwater does not actually runoff, but instead is intercepted, thereby decreasing the amount of rainwater pollutants.

Finally, a third above-grade planter measuring 4-foot by 10-foot by 6-foot was installed beside Building #42 in order to handle rooftop runoff which is piped directly to the retention planter. Harvest RGI engineered the planter's filtration media and volume (stone and soil depths) in accordance with the State of Maryland's stormwater management specifications. "Harvest RGI is the largest supplier of bioretention soils in Maryland, and is very excited to be involved in this dynamic BioMod system developed by Oldcastle Infrastructure," said David Lundberg, Director of Business Development at Harvest RGI. "The bioretention media used on this project is from the MDE Stormwater Design Manual. While an extremely rigid specification issued by MDE, Harvest is able to manufacture to meet the needs to better manage stormwater on this project as well as 100's of thousands of cubic yards of this material used for other projects statewide."

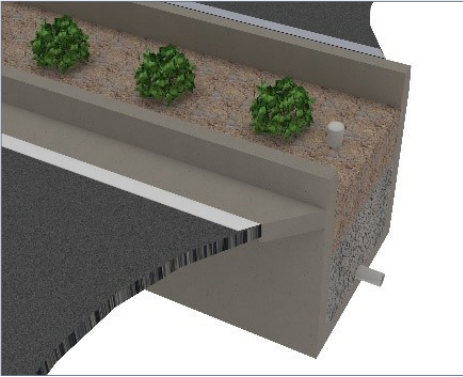
The shipyard's Earth Day fair was a remarkable success. The Coast Guard's environmental industry partner companies and organizations set-up booths and focused on pollution prevention and environmental education. Various volunteers from partner organizations as well as students from Monarch Academy, a local charter school, helped install the BioMod planters and attended the environmental education presentations on the parade field near the Earth Day cookout.

Chris Gorman, Oldcastle Infrastructure Territory Manager for the Chesapeake Region, gave an informative presentation to the students, volunteers and Coast Guard staff regarding the science and engineering behind the BioMod units. The students also toured the shipyard, planted shrubs and learned valuable lessons about environmental stewardship.

"Earth Day is a very good opportunity to do something great for the environment. Partnering with the U.S. Coast Guard's Earth Day Education Fair, providing the BioMod planters and volunteering was a small gesture towards creating a healthy environment for the future," said Doug Bruhns, Oldcastle Infrastructure Regional General Manager for the Chesapeake Region. "It's definitely a group effort. Environmentalists facilitate a lot of things, but we need the participation of others. We need everyone to get involved to make it work, protecting our future and the environment. I would personally like to thank each Oldcastle Infrastructure volunteer and our precast plants for their hard work and dedication to the environment."

One of the most significant, yet unrecognized types of water pollution is stormwater

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runoff. When it rains, stormwater collects everything in its path, including trash, debris and other pollutants. Eventually, the water reaches streams or rivers, either over land or via storm drains. But unlike sanitary sewers that divert water to treatment plants, storm drains ultimately empty directly into surrounding lakes and rivers without any type of treatment. All of the debris and pollutants that were picked up by the stormwater eventually end up in our nation's waterways.

The Baltimore shipyard is the U.S. Coast Guard's active maintenance and repair facility for the Atlantic Fleet. This historic facility has served as regional headquarters, shipyard and depot since 1899. Currently, the shipyard employs over 1,500 personnel to overhaul and recondition ships, from propellers to defensive systems.



About Oldcastle Infrastructure

Oldcastle Infrastructure, A CRH Company, is the leading provider of building materials, products and services for infrastructure projects to several market sectors nationwide, including: Building Structures, Communications, Energy, Transportation and Water.

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