

# Green Technology at Work • No Dirt Here!

## OUR LIVING GREEN ROOF & BIORETENTION RAIN GARDENS

The Read Building Environmental Stewardship Program

### What is a Bioretention Rain Garden?

Our rain gardens are part of a living biologic system that has been designed and engineered to protect the quality of our environment and our streams & rivers.

### What does it do?

Together with our living green roof, our rain gardens naturally filter and clean the contaminants from stormwater that falls on the roof and washes across our pavements. In addition, the planting media, shade from the trees, and cooling effects of the shrubs and groundcovers, all work to reduce the 'urban heat island effect' with the added bonus of reducing the energy costs to heat and cool our living spaces.

### How does it work?

Our **living roof** is covered with a special growing media and planted with Sedums that slow and absorb the impact of rainfall. In a very intense storm, water that is not absorbed is piped to the rain gardens.

Stormwater runoff from our parking lot, sidewalks, and other paved areas is directed across grass pre-filters surrounding the **bioretention rain gardens**, slowing the water and trapping contaminants.

Water flows into and through the rain garden where natural physical and biologic processes such as absorption, microbial action, plant uptake, sedimentation, and filtration, cleanse the water and allow it to infiltrate and replenish our groundwater system.

As plants take up water and nutrients for their needs, they return clean moisture and oxygen into the air we breathe.

### NO DIRT HERE! ... Really!

ALL the plants at The Read Building are growing in Stalite PermaTill® - a special expanded slate growing media. This soil-less media provides improved water storage, retention, porosity, infiltration, aeration properties and high cation exchange capacity. In other words, it provides optimum conditions for healthy plants and assists the plants in creating a healthier environment for all of us. To learn more, go online to: [www.permatill.com](http://www.permatill.com)

### COMMUNITY IN ACTION:

Project Owner/Developer:  
**The Young Group**

Architect & Site Architect:  
**Butz • Wilbern**

Civil Engineer:  
**Walter L. Phillips, Inc. PE**

Media Suppliers:  
**Carolina Stalite**

Landscape Contractor:  
**Ruppert Nurseries**

Green Roof Contractor:  
**Building Logics**

**The City of Falls Church**

**Residents & Businesses  
of The Read Building**

living green roof



water infiltrates into ground  
& replenishes groundwater resources

bioretention  
rain garden

### HOW YOU CAN HELP

#### Dispose all trash in the proper containers

Help keep our gardens clean so they can do the hard work of creating a healthier environment for all of us

#### Walk on the pavement

The grass & plants can't do their work when trampled

#### Please curb pets

The rain gardens do NOT want or need any fertilizer