



Portland, Oregon

Green Streets:

**Potential Benefits
to the
Washington
Metropolitan Region**



What is a Green Street?

From Arlington County, Virginia's green street website:

- A Green Street is a street with a vegetated area in the public right-of-way that reduces the volume of stormwater and stormwater pollutants that enter our local streams, the Potomac River, and the Chesapeake Bay.
- Green Streets address both the volume of stormwater and the pollutants that stormwater carries. They are one of the best tools . . . to address our environmental and regulatory stormwater needs.
 - **Volume:** Significant quantities of stormwater enter Arlington's stream during storms, causing erosion that exposes our infrastructure and undermines trees along our streams.
 - **Pollutants:** Stormwater washes pollutants like nutrients (nitrogen and phosphorus), sediment, bacteria, and litter into our streams.

What is A Green Street?

Continued

- From Portland, Oregon, a Green Street:
 - Handles stormwater on site through use of vegetated facilities;
 - Provides water quality benefits and replenishes groundwater (if an infiltration facility);
 - Creates attractive streetscapes that enhance neighborhood livability by enhancing the pedestrian environment and introducing park-like elements into neighborhoods;
 - Serves as an urban greenway segment that connects neighborhoods, parks, recreation facilities, schools, main streets, and wildlife habitats; and
 - Meets broader community goals by providing pedestrian and where appropriate bicycle access.

Green Streets: Protect Rivers and Streams by Managing Stormwater



Highpoint Neighborhood,
Seattle, Washington

- Green streets do a better job of protecting streams and rivers than stormwater ponds.
- Infiltrating the stormwater into the ground filters pollution and reduces erosion.

Green Streets: Make Communities More Attractive, Cool and Healthy



New York City Greenstreet "Before and After"

- Trees can also save energy, reduce air pollution, and reduce “urban heat island effect” which is expected to increase and adversely public health as the climate warms.
- Some studies indicate that shoppers may spend more and diners linger longer in restaurants in where trees line the streets.

Green Streets Reduce Flooding and Protect Infrastructure



Riverdale, Maryland homes were flooded after the Northeast Branch of the Anacostia overflowed its banks in 2006

- WSSC once estimated that stormwater created about \$35 million a year in costs for replacing damaged water and sewer infrastructure.
- Flooding continues to be a problem in the region's jurisdictions: Prince George's County is spending over \$3 million just to "flood proof" this portion of the Anacostia watershed by raising levees.

Green Streets: Increase Property Values

- Many scholarly studies indicate that trees raise property values.
- See American Society of Landscape Architects, “Banking on Green: A Look at How Green Infrastructure Can Save Communities Money and Provide Economic Benefits Community Wide”



Deaderick Street,
Downtown Nashville,
Tennessee



Green Streets: Calm Traffic and Can Be Cheaper to Maintain



Reed Street
Philadelphia, Pennsylvania

- Because green street designs often narrow the streets or include “bulb outs” they can reduce the cost of repaving over time.
- The City of North St. Paul, MN estimated that green streets would save 15% or more on pavement (the most expensive aspect of street reconstruction) when the width of a residential street is reduced from 30 feet to 22 feet. The same reduction in width would result in 25% reduction in maintenance costs; as much as \$1,000 per mile per year.
- Additional savings in the cost of street sweeping and snow plowing.
- Some jurisdictions are finding that adjacent property owners are willing to maintain the “rain garden” features because they are attractive.

Green Streets Are A Growing Trend



NOMA (1st Street NE)
Washington, DC

And are becoming established policy for many local jurisdictions

- **Green street policies:**
 - Prince George's County, Maryland
 - City of Portland, Oregon
 - City of Seattle, Washington
 - City of San Francisco, California
 - City of Ventura, California
- **Green street manuals:**
 - San Mateo County, California
 - City of Chicago, Illinois
 - City of New York, New York
 - City of Los Angeles, California

Advantages of a Green Street

Policy:

- Encourages joint planning for green streets so environmental departments, which must address stormwater as the result of regulation, coordinate their activities with road departments (and visa versa)
- This coordination creates economies
- Provides guidance for when green streets are not appropriate (when impracticable or value is out of proportion to cost)
- Having a policy can encourage private investment in green streets and road infrastructure



Williamsburg Boulevard,
Arlington County, Virginia

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Forest Estates, Wheaton,
Montgomery County, Maryland