

Conserving Green Infrastructure: The Cost of Green Development Design

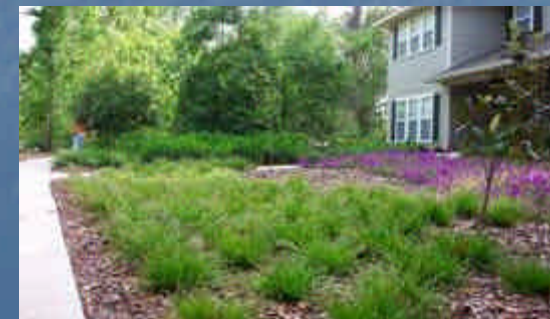
The costs of conservation development practices, which are perceived to be higher than those of conventional development practices, are often competitive to conventional development and in many cases result in significant cost savings for the developer. ²⁷



Traditional Stormwater Conveyance System



Conservation Design for Stormwater Conveyance



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Across 10 case studies of Midwest developments, conservation design treatments saved an average of 36% over conventional practices.²⁷



- Lower Stormwater & Pavement Infrastructure Costs by 10 to 33%
- Reduce Clearing & Grading by 35 – 60% (significant reduction in erosion control expenditures which can cost \$5K/acre)
- Installing natural Landscaping costs \$4,400 - \$8,800/ acre LESS than turf grass
- Natural landscaping costs \$4,000 - \$4,500/ acre LESS to maintain than turf grass
- Use of porous materials can reduce development costs by 30%
- Minimum road, sidewalk, and cul-de-sac widths can save a developer \$150/ linear ft.
- Swale conveyance can cost up to 80% LESS than pipe systems

Projected Construction Cost Savings for Open Space Designs from Redesign Analyses⁹

Residential Development	Location	Original Zoning for Subdivision	Construction Savings	Notes
Remlik Hall	Chesapeake Bay, MD	5 acre lots	52%	Includes costs for engineering, road construction, water and sewer permits
Tharpe Knoll	Chesapeake Bay, MD	1 acre lots	56%	Includes roads and stormwater management
Chapel Run	Dover, DE	1/2 acre lots	64%	Includes roads, stormwater management, reforestation
Pleasant Hill	Dover, DE	1/2 acre lots	43%	Includes roads, stormwater management, reforestation
Buckingham Greene	Dover, DE	1/8 acre lots	63%	Includes roads and stormwater management
Duck Crossing	Wicomico Co., MD	3-5 acres	25%	Includes roads and stormwater management
Stonehill Estates	Fredericksburg, VA	9,000 sq. ft.	20%	Includes roads and stormwater management

Sources: Mauer, 1996; DE DNREC, 1997; CWP SUNOM Model, 2000