

Drainage Around Your Home

Land development and construction can alter many natural features of the landscape. Areas of impervious surface, such as roofs and pavement, replace trees and other vegetation. There is less vegetation to soak up, store and evaporate the water. There are signs a homeowner can look for and solutions that help reduce drainage problems. Typical drainage scenarios may include:

Compacted Soil - In some newer developments, all the topsoil and part of the subsoil material are removed during construction. The subsoil may be densely compacted and often it cannot allow excess water to infiltrate into it. If the soil has a dense layer, especially a layer of clay or a severely compacted layer, the restricted water flow through the soil may cause ponding. Use a soil aerator to increase infiltration and reduce surface ponding. Also consider using deep-rooted, drought-resistant grasses and plants. As the new landscape develops, drainage is likely to improve.

Irrigation Management - Due to the amount of irrigation required for sod establishment and compacted soil conditions common in newer developments, areas of standing water may be observed during the first few years of landscape establishment.

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High Water Table, Springs, Seeps - The water table can be defined as the upper surface of groundwater or the level below the ground surface where the soil is saturated with water. This level may fluctuate by several feet throughout the year, depending on soil conditions, landscape, or weather.

Natural springs and seeps occur due to existing geology and landscape characteristics. Water may flow seasonally, throughout the year, or may flow around homes constructed near a spring or seep. If a high water table, spring, or seep exists, an adequate gravity or sump pump may need to be installed. Also consider a collection of water-loving plants.

Roof Drains - Be sure roof drains are properly fitted with downspouts that will release water away from the home. Placing splash pads at the end of the downspout may help prevent the concentration of roof water from seeping into the soil next to the foundation wall.

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EXCITED ABOUT OUR FUTURE**

County of Henrico
Department of Public Works
Engineering & Environmental Services Division
P.O. Box 27032
Richmond, VA 23273-7032

Phone: 804-226-6453
Fax: 804-501-7470



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Who do I contact about drainage problems on my property?

In most cases, drainage maintenance on new lots is the responsibility of the private property owner and/or the Builder. If you require assistance, please contact the Department of Public Works at 226-6453. You will be asked a few general questions to determine if:

There is any County responsibility;

It is a private property issue; or

It is an issue between you and your builder.

Your concern will be forwarded to an Inspector who will then conduct a site visit. Public Works staff may be able to give you ideas to help identify the best solutions to your particular home drainage problem.

For suspected Building Code violations (improper grade within 10 feet of the foundation or water in the crawl space), contact the Department of Building Construction and Inspections at 501-4360 or visit our website at:

<http://www.co.henrico.va.us/bldg/>

If expert assistance is required, the services of a competent professional should be sought. Contractors that specialize in drainage problems are listed in the yellow pages under *Drainage Contractors, Landscape Contractors, Waterproofing Contractors*, etc... If you plan to contract out the work, be sure to get more than one estimate, carefully evaluate different alternatives, and choose a contractor that guarantees the work.

New Residential Subdivisions



Lot Grading and Drainage

This brochure has been prepared to provide information for homebuilders and new homeowners, with respect to lot grading and drainage on new residential lots. Most "drainage complaints" typically brought to the attention of County staff are private property issues and outside the authority of local government.

- ◆ Why is lot grading important ?
- ◆ Who is responsible for final lot grading?
- ◆ What is a drainage and utility easement ?
- ◆ Drainage around your home
- ◆ Who do I contact ?

Why is lot grading important?

When a new home is constructed, it is essential that the lot be graded properly to ensure that surface drainage is directed away from the building and that it does not cause problems or damage to neighboring properties. Proper grading should allow surface runoff to reach any natural drainage area, the drainage and utility easement, and/or an installed stormwater structure (i.e., drop inlet).

What is the County's responsibility?

The Department of Building and Construction Inspections inspects crawl space grade and the area immediately adjacent to the building. Generally, the grade away from foundation walls shall fall a minimum of 6 inches within the first 10 feet (Va. USBC).

The Department of Building and Construction Inspections does not inspect individual lot grade beyond the required 10 feet. If you think you have a Building Code violation (improper grade within 10 feet of the foundation or water in the crawl space) or are unsure, a Henrico County Building Inspector will conduct an inspection to make a determination. Contact the Department of Building Construction and Inspections at 501-4360.

Henrico County representatives do not inspect the final grade on new lots and cannot use taxpayer funds to solve individual problems or private disputes between builders and property owners.

What is the Builder's responsibility?

The Builder is responsible for final grading on individual lots. The Builder purchases lots from the Developer then sells the home and lot to the purchaser. The Builder is responsible for constructing your house, the grading and seeding or sodding of the lot, driveways, and maintaining clean roads and a clean building site. Building permits are issued with the understanding that the Builder will complete proper final grading for the entire lot. Surface drainage must be diverted to an adequate point of collection.

What is the Homeowner's responsibility?

It is the homeowner's responsibility to evaluate the condition of the final lot grading.

Concerns should be documented, listed in the final punch list, and resolved with the Builder. Homeowners may consider including proper grading and drainage in the home building contract and 1-year home warranty.

What is a drainage and utility easement and who is responsible for maintaining them?

There are numerous easements dedicated for various purposes on private property. A drainage easement is intended to provide an area for the installation of stormwater conveyance structures. The Developer/Builder is responsible for final grading within easements, as detailed on the Construction Plan.

Henrico County does not maintain easements on private property unless a public drainage structure (i.e., inlet, underground pipe, paved channel, etc.) has been placed within the easement and is part of the County stormwater system to convey water. If this is the case, the County will maintain the improved drainage structures only. The responsibility for non-structural maintenance within a drainage and utility easement (mowing, clearing, etc.) lies with the private property owner.

Prior to issuing the Certificate of Occupancy, the Department of Public Works Construction Division inspects drainage structures within the County Right of Way and/or drainage and utility easements, as detailed on the Construction Plans.

Henrico County strongly encourages homeowners to keep easements clear of obstacles that may impede surface water flow and result in drainage problems on surrounding lots, such as tool-sheds and fences. Valuable landscaping within an easement should be minimal in the event maintenance of a drainage structure or utility is required.

