New Residential Construction

Lot Grading and Drainage

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

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

Land development and construction alters natural landscape features. Areas such as roofs and pavement replace trees and other vegetation. There is less vegetation to soak up 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 Soils - 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 dense 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.

Drainage Around Your Home

High Water Table, Springs, Seeps - The water table can be defined as the level below the ground surface where the soil is saturated with water. This level may fluctuate by several feet throughout the year. 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, a gravity drain or sump pump may need to be installed. Also consider installing 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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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, in accordance with the approved construction plans.

Henrico County does not maintain easements on private property unless a public drainage structure (i.e., inlet, underground storm sewer (pipe), paved channel, etc.) has been placed within the easement and is part of the County stormwater system. 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.

Henrico County strongly encourages homeowners to keep easements clear of obstacles such as sheds and fences. These structures may impede drainage or result in drainage problems on surrounding lots. Landscaping within an easement should be minimal in the event maintenance of a drainage structure or utility is required.