

## **Guide to Understanding and Maintaining Appropriate Lot Drainage**

Builders and homeowners both have a duty of care when it comes to the management and drainage of surface water, whether it's rain water or snow melt. The builder is obligated to ensure that after construction of the home and at the time of turnover to the purchaser that the lot has been graded (rough grade) to facilitate proper drainage away from the foundation and beyond in accordance with the municipal grading plan.

Once you have assumed ownership of the property, the onus for maintaining proper drainage becomes solely the homeowner's responsibility. This responsibility goes beyond just managing water shed within your own property, but also includes ensuring that adjacent homes and yards are not affected by the water being drained, from your property.

When final grading, placement of top soils and or landscaping begins, be sure to maintain the already established drainage pattern. If in doubt prior to landscape work being undertaken, check with your local municipal planning department.

### **Drainage requirements:**

In most areas of Saskatchewan individual lots are graded according to a municipally approved grading plan. Grading is carried out near the end of construction to slope the clay based sub-soil away from the house and to direct water (i.e., rainfall) from around the foundation towards the rear yard or front street. A second grading may take place just prior to application of topsoil to fine tune the grade before spreading the topsoil. Unless forming part of the building contract, the homeowner would normally be responsible for this second or final grading of the lot.

The drainage plan for your specific lot may also include systems such as swales (shallow valleys), catch basins (depressions to collect water) or retention ponds designed to control and assist with overall surface drainage of the entire sub-division.

### **Never let Water Pool Near your Foundation:**

Standing water near the foundation of a home can result in serious problems with your foundation / basement. It is very important that water is not able to pool or pond in close proximity to the perimeter of the foundation. As a homeowner, it is your responsibility to make sure water continues to drain away as quickly as possible from the foundation of your home, as well as away from your neighbor's property.

Areas where excavation has occurred during the construction phase (i.e., where utility trenches or basements were dug) some amount of settlement is to be expected. The areas where settlement has occurred should be filled with clay -based fill material as soon as reasonably possible. To fill a depression, first remove any topsoil then add and compact the clay-based fill material, **do not** use topsoil for this purpose, as rainwater will drain through it and the area will continue to collect and hold rainwater. It should be understood that your lot is graded for proper water drainage during normal rainfall. Heavy or prolonged rains may still result in some standing water in your yard.

### **Eavestroughs and Downspouts:**

Eavestroughs move water toward downspouts and away from your home. During a heavy rainstorm, they may move hundreds of gallons of water away from your home. Eavestroughs must be sloped towards downspouts and must be clear of leaves, soil and debris to work properly.

**Did you Know?** A 40' x 100' lot in Saskatchewan can receive an average 14" of rain, or 31,900 gallons or 144,800 litres of water.

## **General Maintenance & Other Considerations**

- **Do not** alter the general drainage pattern of your lot without consulting the municipality and/or your developer;
- **Do not** divert water away from your property and onto your neighbour's property.
- **Do not** plant flowers in window wells.
- **Do** keep window wells free of debris (i.e., leaves) that may hamper drainage (Note: some window wells feature a drain that directs water down towards weeping tile).
- **Do** fill in yard depressions with clay – where soil settling occurs next to your basement wall, fill depressions with clay and slope away from the wall.
- **Do** clear ice and snow away from drains each spring to provide a drainage pathway for melting water – these pathways should lead water away from your home.
- **Do** maintain positive drainage away from the home using clay when landscaping or planting flowerbeds near the foundation of your home.
- **Do** return a downspout extension to the lowered position after mowing your lawn. Downspouts that land on grass usually feature an extension along the ground to help move water away from your house. These extensions must be in place and in the lowered position to move water away from the foundation.
- **Do** clean your gutters at least once a year to keep eavestroughs and downspouts free of dirt, asphalt shingle particles, leaves and paper. These obstructions are often washed down by rain, settle in gutters and cause gutters to drain slowly and even overflow.

## **Managing Water: Roof Drainage**

One of the easiest ways to prevent water from entering your basement is to make sure rain water from your roof drains properly and is diverted away from your home's foundation. Directing water away from the perimeter of the home using eavestroughs and downspouts reduces the opportunity for water to enter along basement walls.

## **Landscaping & Water Drainage**

If you want to change the landscaping in your yard, you must consider how it will affect the way water drains on your lot as well. An established lawn can prevent soil erosion and help with drainage. Try to complete the lawn portion of your landscaping design as soon as possible after you take possession of your new home. Areas with grass will generally require steeper drainage slopes compared to hard surfaces (i.e., concrete or asphalt) to help encourage proper site drainage.