

## ***Residential Drainage Maintenance Checklist***

Many times, drainage problems affecting your home and/or property can be corrected through simple examination and maintenance. The following list provides items to look for to help control or mitigate sources of water problems. Most of these items are routine maintenance activities and can help reduce major maintenance problems in the future.

**ROOF:** *Leaks from the roof do not necessarily appear at the exact trouble spot location. Often, water that penetrates the roof is able to enter the home along joints or cracks in the walls.*

- Check for broken, curling, missing shingles
- Check flashing joints and caulk as needed
- Check ceilings on upper floors and along roof line for water spots, indicating roof leaks
- Check roof annually and after every major rain storm

### **GUTTERS AND DOWNSPOUTS:**

- Check for sags in gutters and tightness of gutter nails to fascia board.
- Check downspouts for blockage or obstruction. This can be accomplished by flushing the downspout with a yard hose.
- Check for signs of dripping beneath the gutter rail.
- During winter months, check for standing water in the gutter rail. Standing water in the gutters can lead to ice dam conditions.
- Check during rain storm events for overflow conditions. Evidence of overflow may be present on the ground directly below the gutter rail, usually in a riling pattern
- Check gutters every Spring and Fall for obstructions and after every major rain storm event.

### **GUTTER SHOES AND SPLASHBLOCKS:**

- Check the bottom of the downspout to ensure that the gutter shoe is tightly in place and directed to a splash block, and in turn, discharges the water away from the foundation.
- Check for signs of erosion or mud at downspout locations. Correct with vegetative cover or landscaping materials such as stones.
- Inspect every spring and fall.

**WINDOWS AND DOORS:** *Windows and doors are the most common entry points for water due to the number joints and seams.*

- Inspect insulation around the doors and windows for water tightness as well as air tightness. Note of caution for windows: most window casings have small openings at the bottom to allow the interior side to “breathe”. Due to the temperature differences between the outdoors and indoors, windows commonly produce condensation on the interior surfaces. The small openings provide a way for the condensate to exit to the outdoors.
- Also, check siding adjacent to the windows (“J” channel).

### **CHIMNEYS:**

- Inspect mortar joints for openings and seal with suitable cement compounds.

- Check flashing around chimney and seal all openings with caulking. If not already present, install a chimney cap to keep rain and pests from entering the interior of the chimney.

#### **WINDOW WELLS:**

- Install window well covers over all window wells to help keep moisture away from the foundation wall and window area.
- Inspect grading adjacent to window well, fill any voids, and compact with the back of a shovel blade.

#### **WINDOW AIR CONDITIONING UNITS:**

- Inspect the seal around the unit and make sure condensation produced by the unit is dripping away from the side of the home. Drip plates and pans can be used for this purpose.
- Check drip pans and unit regularly for maintenance.

**CRAWL SPACES:** *Typically, crawl spaces are composed of the existing earth bottom and can collect dampness due to condensation. Sometimes the dampness can be controlled by installing insulation or vapor barrier materials. Crawl spaces can collect water beneath the home if the grade is not directed away from the crawl space area. Additionally, groundwater seepage can collect in the crawl space. While this condition in itself is not necessarily damaging to the home, water and darkness are conducive to insect infestations. Therefore, check crawl spaces periodically for standing water, insects, and any evidence of rodent droppings. If the latter is present, ensure that all wire mesh entry points are repaired.*

**EXPOSED OR DAMP WOOD:** *Exposed or damp wood is susceptible to damage or deterioration over time. The dampening of wood can cause rotting out and decay.*

- Check exposed wood for signs of insects or decay. Termites and other insects feed on decaying wood matter which can lead to serious structural damage.
- Paint all exposed wood and replace any damaged or damp wood.
- Caulk any joint openings in wood surfaces.

**WALKOUT AREAWAY DRAIN:** *Aside from doors and windows, area drains that become overwhelmed during a heavy rainstorm can backup and flood into the home through the door seams.*

- Keep areaway drains clear of obstruction and check drain line by snaking out the line on at least an annual basis.
- Make sure that the area drain is protected with a screen or strain to prevent the drain pipe from becoming blocked.

#### **SUMP PUMPS:**

- Check sump pump for operation on an annual basis. Pour a bucket of water into the sump pit, taking care not to pour water over any electrical connections. Fill the sump pit until the sump pump turns on by triggering the float.
- Inspect discharge points outside and ensure that the discharge water does not cause drainage problems for your neighbor.
- For peace of mind, install a battery backup system, or install a stand ready redundant pump, which is available from your local hardware store.

**DRIVEWAYS:**

- For driveways next to homes, check for settlement and slope away from the home.
- Make sure water does not have an opportunity to collect in seams or cracks in the driveway.
- Avoid draining water from downspouts or sump pumps onto the driveway.
- Avoid corrosive de-icing salts and chemical applications on concrete driveways.

**PATIOS AND WALKWAYS:**

- Check for settlement cracks.
- Do not use corrosive de-icing salts or chemicals on concrete.
- Look for fissures next to the house where concrete abuts the side of the home. Seal with weather resistant silicone caulking.
- Check slopes of concrete patios and walkways to ensure the positive flow is away from the home's foundation.

**YARDS AND LAWNS:**

- Control erosion problem areas by installing landscaping ground cover such as periwinkle.
- Mitigate water problem areas with landscape stone or work with the water to create a water feature or rain garden.
- Planting of a grass or most vegetation is done best in the late fall season.

**GRADING AND LANDSCAPING:** *Design landscapes with drainage in mind. Be sure not to block drainage courses or re-direct water onto adjacent properties. Grading or paving activities generally require permits and necessitate erosion control devices during the grading operation. Existing grading around the home should be draining away from the home's foundation area.*

- Check the grading adjacent to the home for cracks, fissures, and/or sumps. Overtime, some settlement of grading is normal and should be inspected for corrective action as needed on an annual basis.
- Check grading around the home on an annual basis. Susceptible areas for grading problems near the home are around window wells, walkout stairways, corners of the home.