City of Cortland - Service Department

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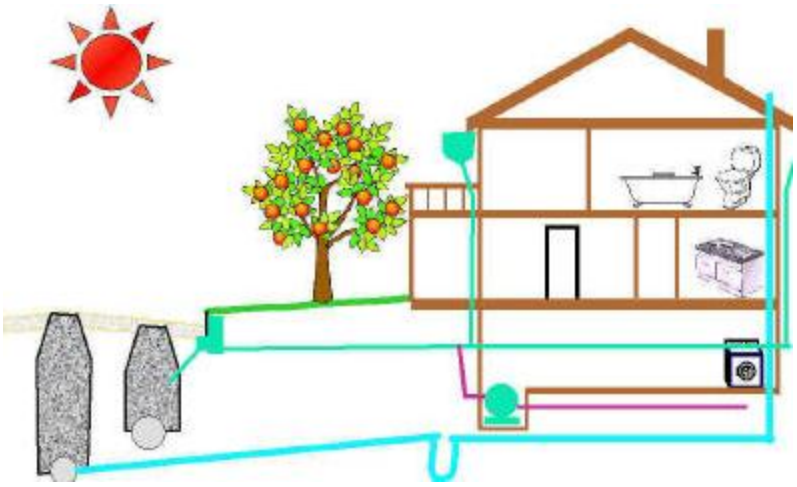

BASEMENT FLOODING INFORMATION

SEE FORMS FOR THIS DIAGRAM
Above: Standard Newer Home Construction Example Showing Proper Connections

Water in basement is usually caused by one of two sources:

1) **Through stormwater seeping in walls, floors or windows.** This is normally due to inadequate drainage or grading around a home, malfunctioning sump pumps, gutters or foundation drains, which are the responsibility of the property owner.

2) **Through sanitary sewer backups** from the basement drain. Backups can occur from a variety of reasons, most commonly in older areas during wet weather. A common cause is from sanitary sewer surcharging from inflow and infiltration, known as "I/I," which refers basically to ground or rain water entering the sewer system through cracks in city or home sewer pipes or from outdated roof or foundation drain connections. Other causes: sewer blockages from grease, debris, or tree roots; collapses or other deteriorated conditions in a city or home sewer line.

Why Do Basements Flood?

Water can enter your basement for a number of reasons. Water in your basement is most likely to occur during periods of heavy rainfall, or when snow is melting rapidly during a spring thaw. In these cases, your basement can be wet because of:

- failure of the weeping tiles (foundation drains); and
- overflowing eavestroughs or leaking/plugged downspouts.

Basement flooding may also occur because of:

- a blocked connection between your home and the storm sewer in the street;
- a back-up of wastewater in the sewer system (or a combination of wastewater and rainwater from the sanitary or combined sewer system); and
- failure of a sump pump (in some areas) used to pump weeping tile water.

Practical Measures to Avoid Basement Flooding

Basement flooding problems are best diagnosed by working your way down from the eavestroughs and downspouts, to the lot and foundation drainage, and then to the plumbing system – both inside your home and beyond its connection to the municipal sewer system.

Eavestroughs and Downspouts

Water pours off your eavestroughs into downspouts. If the downspouts are dumping the water right beside your foundation, it drains directly to the weeping tile and can easily overload your homes' drainage. Make sure downspouts extend at least 6 feet from your basement wall. Also, be sure the water does not drain toward your neighbor's basement walls. It should drain away from your house toward the street, rear yard, or back lane.

If your downspouts are connected to your home's sewer system, or weeping tile, disconnect them.

Clean debris from eavestroughs regularly. If they overflow even when clean, replace them with larger size eavestroughs and downspouts.

Lot Grading

If the land around your home slopes in toward the foundation, rainwater heads right for the weeping tile around the basement and can overload your foundation drainage system. The land around many homes settles over time and then slopes in toward the foundation. If your lot slopes inward, you'll want to fill in and grade the lot so that, for a least 6 feet out from around the foundation, the land slopes away from your house.

Build up the ground around your house so that water drains away from your basement walls. Also, examine sidewalks, patios, decks, and driveways. These can settle over time and cause water to drain back towards your basement walls.

Extend downspouts so that water flows away from your house and does not collect next to the basement walls and windows.

Proper drainage helps to:

- Reduce the amount of water flowing to your home's sewer system and to the main sewer system, and lessen the risk of sewer backup;

- Reduce water seepage into your home through basement windows and cracks in your basement walls;

- Keep the moisture content of the soil around and under your house stable to reduce the chances of cracking and shifting. If water collects next to your basement, it can make its way to the footings that support the basement walls. The increased moisture may cause the footings to heave or settle; and

- Extend the life of your sump pump by reducing the amount of work it has to do.

Be sure that any drainage improvements you make do not cause water to flow onto your neighbor's property.