SIX WAYS TO STAY DRY:

1. Effective Downspout Drainage

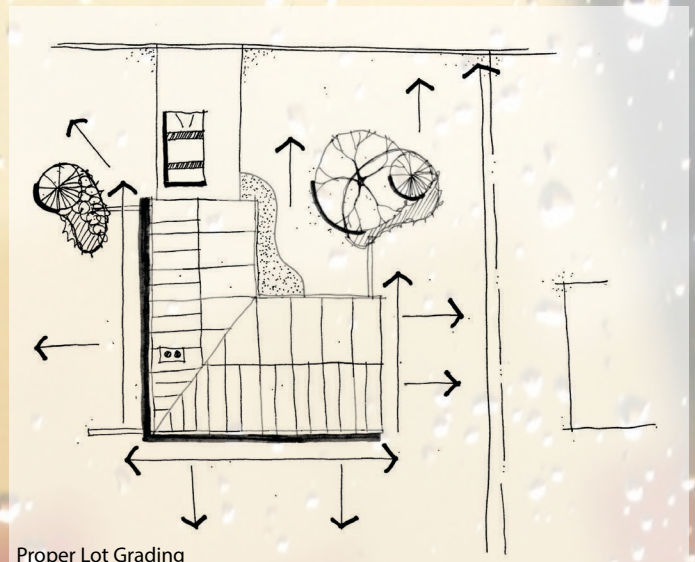
2. Proper Lot Grading

3. Swales

4. Sump Pumps

5. Backflow Preventers

6. Rain Gardens



Proper Lot Grading

Be sure your drainage improvements do not cause drainage problems for your neighbor or affect t he grading near the property line. If you have questions about your planned drainage improvements, please call 658-2911.

Prepared by CBCL Limited

Information Bulletin

Measures to

REDUCE the RISK of Basement FLOODING from Rainfall Runoff

A municipal storm sewer and drainage system cannot guarantee basement flood protection to every house in the city.

A flooded basement is more than just a nuisance. Restoration of a finished basement may cost thousands of dollars. A flooded basement may cause your insurance premiums to rise or make it difficult to obtain insurance.

To protect your home from basement flooding, we invite you to take a look at

things you can do

to reduce the risk of basement flooding.

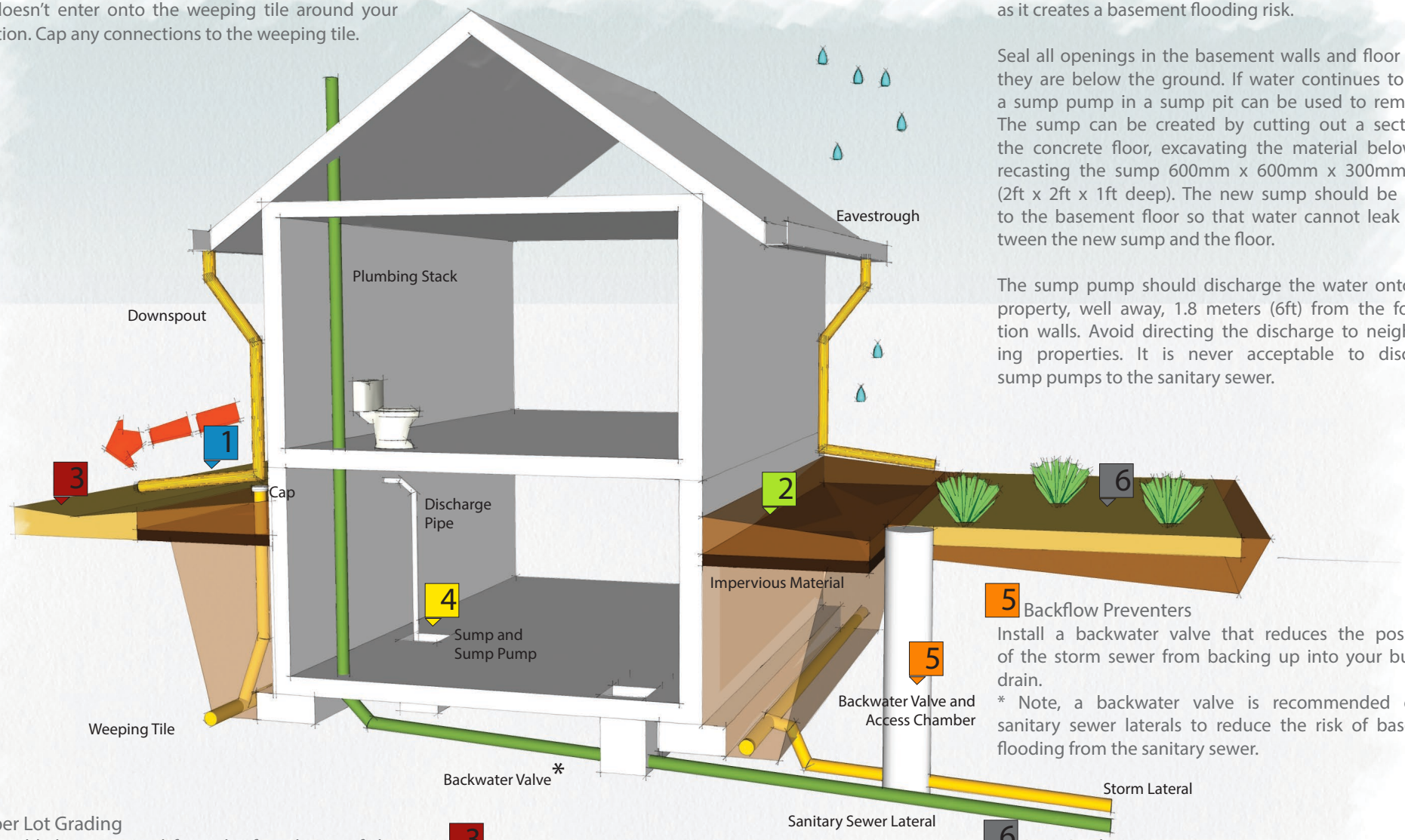
Stormwater Management

The City of Saint John

1 Effective Downspout Drainage

Downspouts should be disconnected from the weeping tile and extend at least 1.8 metres (six feet) from your basement wall to drain away from the house toward a street or drainage swale. This ensures roof water doesn't enter onto the weeping tile around your foundation. Cap any connections to the weeping tile.

Build up any settled ground around your house so that water always flows away from your basement walls. Sidewalks, patios, decks, and driveways can settle over time and allow water to drain back toward your home.



2 Proper Lot Grading

Land should slope outward from the foundation of the house for a minimum of 1.8 metres (six feet). If the lot slopes toward the house, surface water will enter the weeping tile and overload the drainage system. Use impervious materials such as clay or a plastic drainage mat near the surface to limit the amount of surface water that finds its way to the weeping tile.

3 Swales

A swale is a wide shallow channel with gently sloping side slopes. Provide swales along the back and/or side property boundaries to limit flows towards your house. The swales should be as large as possible to slow runoff.

4 Sump Pumps

A sump pump is necessary if the drain tile around your foundation is already connected to a sump pit. If there is not already a connection from a sump pit in the basement to the drain tile, avoid making a connection, as it creates a basement flooding risk.

Seal all openings in the basement walls and floor where they are below the ground. If water continues to enter, a sump pump in a sump pit can be used to remove it. The sump can be created by cutting out a section of the concrete floor, excavating the material below and recasting the sump 600mm x 600mm x 300mm deep (2ft x 2ft x 1ft deep). The new sump should be sealed to the basement floor so that water cannot leak in between the new sump and the floor.

The sump pump should discharge the water onto your property, well away, 1.8 meters (6ft) from the foundation walls. Avoid directing the discharge to neighbouring properties. It is never acceptable to discharge sump pumps to the sanitary sewer.

5 Backflow Preventers

Install a backwater valve that reduces the possibility of the storm sewer from backing up into your building drain.

* Note, a backwater valve is recommended on all sanitary sewer laterals to reduce the risk of basement flooding from the sanitary sewer.

6 Rain Gardens

Install a rain garden to limit flows to the storm sewer or neighboring properties. Rain gardens are planted depressions that are designed to absorb rainwater runoff from impervious areas like roofs, driveways, walkways, and compacted lawn areas. This reduces rain runoff by allowing stormwater to soak into the ground.