

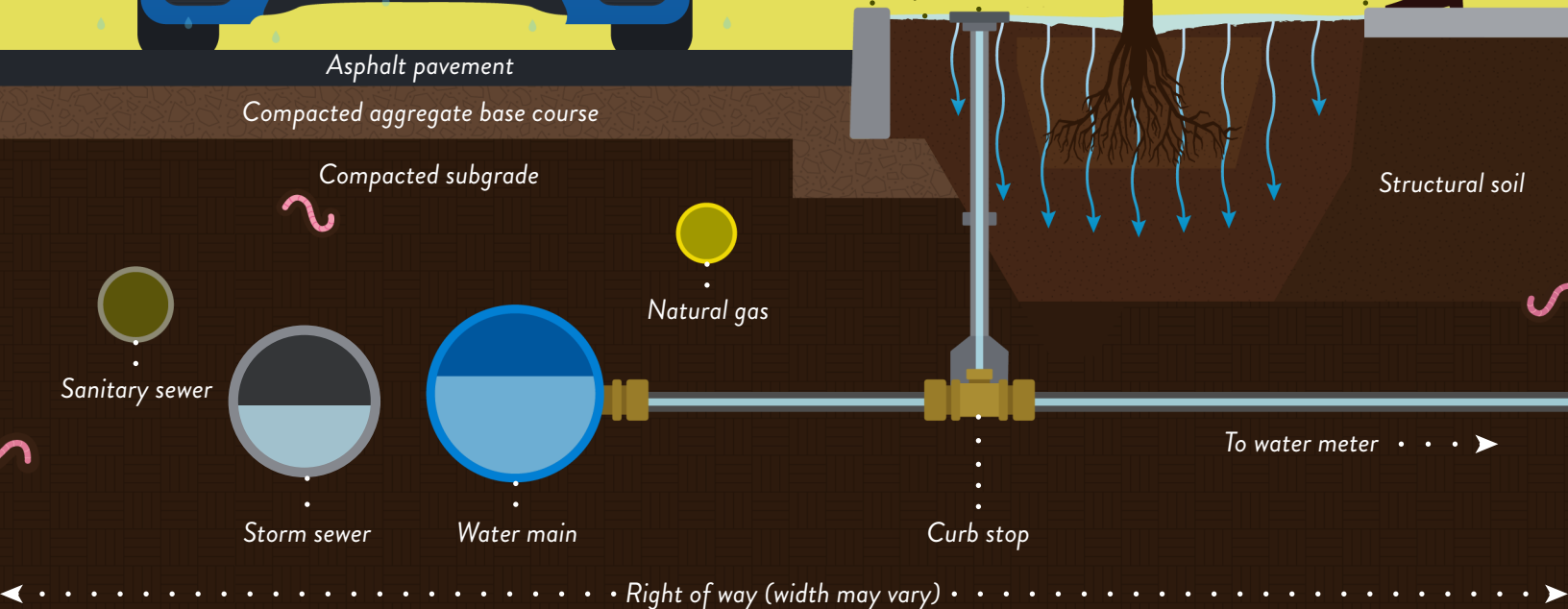
RETROFITS 101:

KNOW YOUR STREET TREES

01 WHAT ARE STREET TREES?

Street trees are trees that are planted in the **public right-of-way (ROW)**, the strip of land extending beyond private property lines that includes streets, sidewalks, parking strips, and other paths of travel, landscaping, and amenities. They are typically owned and maintained by the **municipality or state**.

Street trees provide **stormwater management benefits** in addition to their immediate landscaping and aesthetic value. Reducing stormwater runoff is key in urban environments, where **impervious surfaces** such as streets and sidewalks impede the natural flow and infiltration of rainfall and snowmelt. Street trees help **slow down and filter pollutants from runoff**, which travels through stormwater systems and enters local bodies of water.



02 STORMWATER MANAGEMENT STRATEGIES



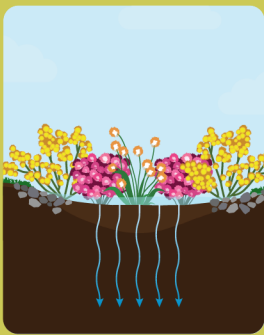
Bulb-outs

Adjusting the curblines to extend, or “bulb out” into the roadway reclaims existing pavement for landscaping and creates larger planted areas for stormwater to filter through and evaporate.



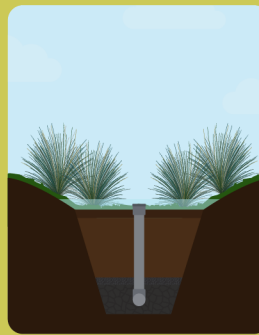
Curb cuts

Curb cuts are openings in the curb that divert stormwater runoff from the street into pervious planting areas such as roadside swales, parking lot islands, and rain gardens.



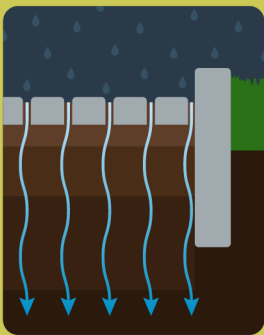
Rain gardens

A rain garden is a bowl-shaped depression in the landscape that collects runoff and allows it to permeate the soil. Outfitted with native plants, they are an aesthetic, cost-effective way to reduce runoff.



Vegetated/dry swales

Swales are broad, shallow depressions that slope toward the storm drain system. They direct and slow down the flow of stormwater, filter pollutants, and promote infiltration.



Permeable pavements

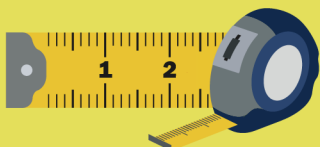
Permeable surfaces such as porous asphalt and pervious concrete allow runoff to infiltrate the soil and groundwater. They can be a low-cost alternative to impervious pavements.



Rainwater harvesting

Not only does collecting rainwater from rooftops reduce the total volume of stormwater runoff, it also requires minimal treatment and can help conserve potable water supplies.

03 PLANTING CONSIDERATIONS



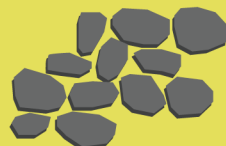
Space requirements



Utility distribution



Soil quality & texture



Impervious surfaces

04 WHY STREET TREES?

Pros

- + Mitigates **stormwater runoff & flooding**
- + Improves **groundwater recharge & water quality**
- + Regulates **air quality**
- + **Shading & cooling** help **reduce energy costs**
- + Can increase **biodiversity**
- + Enhances **community aesthetics & livability**

Cons

- + Can have **low survival rates** due to site constraints or lack of maintenance
- + **Tree root growth** can damage **urban infrastructure** if designed improperly
- + Can be **costly** to purchase, plant & maintain
- + Requires a **permit**