The Stockholm Solution: Experiences over the last years

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Problems for New Planted Urban Trees
Problems for Mature Urban Trees
Massive amount of roots in a railway embankment, Stockholm Sweden.
Massive amount of roots in cable covers for electrical wires, Stockholm Sweden.

Missouri pea gravel bed
Using a rock base growing substrate which are a benefit for both for trees and stormwater management

Airy layer of macadam "63 – 92 mm" 20 cm thick

Structural soil of macadam "100 -150 mm", 60 cm thick

Open surface with organic soil

Ventilation chamber

Stone fraction 300-650 (mm)
Infiltration of water from roofs and sidewalks
The extension of roots in the airy layer of rocks are approx. one meter per year in the pure rock layer!
Measurements of infiltration capacity in the structural soil

100 mm water on 4 m² of 60 cm Structural Soil
Rainwater from 2500 m² of roofs and sidewalks leads into the soil pit of 12 trees and in the airy layer and the structural soil beneath the sidewalk.
Planted at the size of 35–40 cm, after six years the trees have a size of 70–80 cm.
Tree at the left are the original tree approx. 100 years old. Tree at the right planted six year ago!!

An area with bad functions for aesthetics values and stormwater management!!
The same area after replanting and reconstruction. All roof and surface water are infiltrated into rooting area of the trees!!