Keeping Sidewalks Smooth and Shady

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Why do roots damage sidewalks?

Roots grow where moisture, oxygen, density, nutrients allow,

Good environment under some sidewalks – condensation,

All concrete cracks – with or without trees,

Cracks allow entry of water, oxygen and nutrients, which can intern provides a better environment for roots,

Roots do have the ability to lift sidewalks even without cracks.
Sidewalk Trials

Established 1996
Suburban sidewalk design and construction

Six treatments below or along side of the concrete

Planted - London Planes
Sidewalk Plot After 10 Years
Treatments

Control – Sidewalk lifted and cracked
Structural soil - Soil/Gravel Mix 4”- Worst
Black Poly 18” - Worked well below ground
Deep Root Barrier 18” - Worked well
Styrofoam 4” - Worked well
Gravel 4” - Worked well
Can treatments be combined?

Rob Burk PE