4 MAIN Causes of Asphalt Deterioration (& how to repair them)

www.dryco.com
HAVE YOU EVER DRIVEN DOWN A ROAD RIDDLED WITH POTHOLES?

Or maybe your once beautiful asphalt driveway or parking lot is beginning to look shabby from all the cracks crisscrossing it.

We can all agree those situations are a real pain (in more ways than one!)

But thankfully, asphalt can be repaired, and in some cases, deterioration can be avoided - especially if you know what is causing the deterioration.

Here are the 4 leading causes of asphalt deterioration so you can meet your asphalt problems head-on!
1. Raveling

Have you ever walked through an asphalt parking lot and noticed loose rocks and debris? If so, the asphalt may have been raveling right under your feet!

In other words, raveling is asphalt that is crumbling away into tiny stones, giving a rough, rocky appearance to the pavement.

There are several reasons raveling may happen:

Sometimes the aggregate particles (crushed stones) used in asphalt cause a layer of dust to form on top of the pavement. When this happens, the liquid asphalt binder bonds with the dust instead of the aggregate. As a result, the stones slowly begin to crumble away.

Raveling most commonly occurs when exposure to the elements causes the liquid asphalt binder in the pavement to oxidize and become brittle. Then, the weight of vehicles causes the brittle surface to crumble.

Water then washes away the crumbled aggregate, diminishing pavement thickness and revealing a rough, rocky appearance.

To avoid raveling, make sure the aggregate is bonded to the asphalt binder, and place a coat of sealer on your asphalt yearly.
2. Cracking

Variations in temperature cause pavement to expand and contract, and rain may cause the soil underneath to swell irregularly.

All of this puts stress on the pavement, creating long cracks in the roadway.

As the pavement ages, these cracks will appear with increasing density, forming block cracks. Block cracks indicate that the pavement has lost its flexibility and may require major reconstruction.

Cracking is one of the most common causes of asphalt failure since almost every climate experiences weather swings and some rain.

But, with regular maintenance, you can keep your asphalt from forming block cracks. As a general rule, whenever you see cracks in your asphalt, you should repair them with crack filler or seal coating.

Performing these repairs promptly often helps avoid severe asphalt cracking.
3. Alligatoring

Alligatoring is an asphalt condition easily recognized by a series of cracks grouped together in one area. As you might guess, the name for this particular asphalt deterioration comes from its striking resemblance to alligator skin!

Alligatoring is almost always a sign that the subgrade for your asphalt has problems.

Here’s how it happens:

Water from rain, drainage, or flooding enters cracks in the pavement and, over time, slowly carries away the “fines” of the subgrade.

This causes unstable, unsupported pavement. In turn, the weight of vehicles causes the unsupported pavement to crack.

Alligator cracking can be challenging to address.

If the failure is determined to be structural (which is most often the case), the only real solution is to perform a full-depth patch repair.
Potholes are awful, and they can be caused by various defects in the asphalt.

If moisture penetrates the sub-base of asphalt, the pavement is weakened and will usually cause potholes.

Potholes can also form in conditions where the asphalt hasn’t been compacted adequately, and the material has begun to ravel out of place.

And finally, potholes also form when alligatoring is left unattended. Alligatoring that isn’t dealt with spreads through the pavement like cancer, breaking the pavement into even smaller pieces that are cast aside, eventually forming potholes.

Just like a leaky roof left unreppaired, the costs increase rapidly at this stage. Immediate response is highly recommended.
Faulty asphalt is no fun at all - especially if it’s on your property.

Thankfully, you can keep a careful eye on your pavement, stay up to date with regular maintenance, and extend the life of your asphalt.

If you have any asphalt needs, talk to us at DRYCO. We do everything when it comes to asphalt - from new construction to repairs to overlay options.

In everything we do, we are committed to being reliable, responsible, and results-driven.

Contact us today and schedule a free estimate. We look forward to hearing from you!