Preparation & Application

Over time, all pavement is going to crack, either from the continued exposure to sunlight or the effects of moisture over time. The sun oxidizes the asphalt pavement causing it to harden and shrink. When this happens, the pavement breaks at its weakest point (usually along the joints). Water then seeps into the cracks and softens or weakens the sub-base.

During extreme temperature fluctuations, common in freeze thaw cycles, water that is trapped beneath the surface also freezes, which can widen the cracks and cause the pavement to heave.

Temperature fluctuation causes the asphalt to expand and contract, further opening the crack and creating a greater passageway for moisture to the base. Resulting damage is most noticeable in climates where freeze/thaw cycles are common, but base damage occurs in all weather conditions.

The constant exposure to the sun makes the asphalt brittle and results in cracking. These cracks worsen when there are heavy traffic loads. Cracks can be repaired using a sealing method or a routing method.

In the sealing method, singular cracks that are ¼ inch and wider and not in alligatored areas will be thoroughly cleaned of all foreign matter with an industrial air compressor. The crack will be injected with a rubberized hot pour material using a state-of-the-art, oil-jacketed cracksealing system.

In the oil-jacketed system, the material is hydraulically agitated, then pressure fed through an oil-jacketed pump and injected under pressure directly into the crack at the optimum temperature to prevent decomposition of the material and to maximize adhesion.

In the routing method – where recommended – cracks will be mechanically routed prior to material installation to create a ½ inch deep by ½ inch wide reservoir.

With either sealing method, the hot pour material can include rubberized asphalt, low-modulus rubberized asphalt, fiberized asphalt or an asphalt rubber, depending on the existing asphalt condition.

Specifications

Specifications:
- ASTM D 164
- Federal Specifications SS-S-14011C
- FAA Specifications Item P-605
- Corps of Engineers CRD-C 530
- AASHTO M-301

*Or per any specifications noted in engineering plans