

Sealcoating Best Practices

Evaluating Asphalt Pavement

Asphalt Pavement should be evaluated once every six months or after severe weather seasons to assess the overall condition and to identify potential problem areas. Areas that should be noted are; depressions, upheavals, cracks, alligating, loose aggregate and pot holes. Depressions can be of two types. The first are small dents in the asphalt where water might puddle and are relatively simple to fix by filling in with bagged asphalt or liquid material. The second are major areas of sinking and cracking of the asphalt which is called "alligating". This is indicative of problems below the asphalt where the base rock is moving and causing the surface to sink. Alligatored areas should be patched or filled to keep water out. The only permanent fix for alligating is to remove and replace the asphalt and add compacted base rock in the area. When evaluating depressions measure the size and depth of the area and note any significant changes.



Upheavals are places where the asphalt has risen up causing a bump. Upheavals can be caused by water or roots under the asphalt, frost heave or asphalt and seam failure. Some upheavals can be ground down, but others must be removed and replaced. Cracks are caused by movement in the asphalt, base rock or pressure on the surface of the asphalt. Cracks should be monitored for length, depth and thickness. If you have cracks that are $\frac{1}{4}$ " or larger they need to be filled to prevent water infiltration. Cracks can be filled with either hot or cold applied crack filling material. Loose aggregate or rocks on top of the asphalt are a sign that the asphalt is coming apart. This is caused by erosion and sun damage attacking the asphalt oil which binds the whole expanse of the asphalt. This problem can be addressed in several ways including restorative oils, matting, grinding and overlaying or complete removal and replacement. Potholes are weak spots in the asphalt where a hole is forming. Potholes can be filled with patching material. With all of these problems, the sooner they are addressed the less expensive the solution will be. One of the most effective and least expensive ways to protect asphalt is a regular maintenance program that includes sealcoating. In order to sealcoat asphalt must be dry and properly prepared.

Asphalt preparation

The first step in a quality sealcoat job is picking the proper products for the job, not all sealcoats are the same. Be sure that the sealcoat used meets the Asphalt Sealcoat Manufacturers Association (ASMA) specifications. This will insure that a quality product is used. The manufacturer of a quality seal will provide surface preparation guidelines that should be followed and will be similar to those provided here. First, all debris and dirt needs to be removed from the area to be sealcoated. This can be achieved with wire brooms, blowers, vacuums, sweepers and/or pressure washers. Second, all potholes, cracks and depressions need to be filled. Third, any areas of thick paint from markings may need to be ground off. Finally, all contaminated areas of asphalt need to be treated.



Asphalt saturated with oils, transmission fluid or other petroleum products need to be burned, scraped and sealed using an oil spot seal. Areas with soap, wax or other chemicals need to be cleaned with the appropriate cleanser to remove the residue or the sealcoat will not adhere to the asphalt. The asphalt needs to be clean, dry and at the proper temperature. During extremely warm weather asphalt may need to be misted with cool, clean water to bring the surface temperature down. The surface preparation is extremely important and can mean the difference between a good sealcoat job and a bad one.

Application

Once the surface is prepared the sealcoat material can be applied. Sealcoat can be applied many different ways; by squeegee machine, brush applicator, spray and hand squeegee. The sealcoat material should be diluted to manufacturer's specifications. Two coats of sealer are recommended by ASMA. Application should be even and areas of overlap should be avoided. Sealcoat should be completely dry before a second coat is applied. The sealcoat should be fully cured before allowing traffic to drive on it or markings to be applied. A good sealcoat job performed by a qualified contractor should last between 2 and 5 years.



Conclusion

Proper evaluation and maintenance can keep asphalt in good condition for decades. Crackfilling, repairs and sealcoating will protect your asphalt and make it look good as well. Following the guidelines above can preserve your pavement and save you money in the long run.

