

# **Road Paving & Surfacing Treatment Descriptions**

**Crack Sealing** - Crack sealing is the placement of a sealant material into cracks of an existing pavement surface to prevent excess water and moisture from penetrating the asphalt. This is a preventative measure to keep the road from deteriorating further. Crack Sealing can be done as a stand alone treatment or in conjunction with other treatments listed below.

**Fog Seal** - A fog seal is a thin liquid layer applied to the surface of a paved road in relatively good condition. The intent of this treatment is to seal the pavement, rejuvenate, restore the wearing surface and provide resistance to deterioration due to the weather and sun. Subsequent to a Fog Seal the cracks are sealed with a liquid asphalt sealer. This treatment will extend the life of the pavement. This is classified as preventive maintenance.

**Double Microsurfacing (aka DM or micro)** - A microsurface is a thin layer (3/16") preventative maintenance treatment applied to an existing paved surface in either one or two layers. This treatment adds a tough wearing coat that will seal and protect the existing pavement and give it a new friction course. In Lexington this treatment is generally done in two applications. The second application will usually occur the next good weather day after the first application.

**Cape Seal** - A complete Cape seal application is done in several steps. First a full width coating of rubberized chip seal material is applied. The chip seal has a surface that can be driven on for a short time and it is rougher than standard asphalt. It has some loose chips. About a week after the chip seal, the roads will receive a microsurface coating. The finished microsurfaced road will be very similar to a standard paved surface. The "Cape Seal" term describes the complete multi-layer treatment.

For Double Microsurfacing and Cape Sealing, prep work includes crack sealing, patching sections of existing pavement, adjusting manholes, catch basins and other roads iron structures to future finished grade, and minor drainage improvements, and may be done a month or more before the actual treatment is completed.

**Mill and Overlay** - The existing pavement has 0.5 to 2 inches of the surface ground off. This treatment removes the existing deteriorated wearing surface and leaves the substructure intact. Then the installation of new pavement follows the Overlay description above. It is not uncommon for two layers to be installed after milling of the pavement.

**Cold-In-Place Recycling** - Cold-in-place recycling is a preservation technique for reusing the existing road material to create a new roadway surface. The old road is ground up, mixed with some additives, and immediately placed back down on the road. Additives are based off a specific mix design. After one week a wearing surface will be put on top of the new road, making it look very similar to a typical paved surface. All structures (catch basins, manholes, and water and gas gates) will have to be reset for this treatment.

**Reclamation** - This treatment is intended for a roadway that has outlived its useful life. It is considered to be the most aggressive resurfacing treatment. The entire pavement structure is completely pulverized to a depth of 14" to 20". Most of the pulverized material is reused as a subbase for the asphalt paving. Additional material may be required to be blended in the subbase to meet specifications. After the subbase is installed a minimum of 4" of asphalt is installed in multiple layers.