



# MCDOT NEWS

News from the Montgomery County Department of Transportation, Division of Highway Services

## Davis Mill Road Permanent Pavement Patching Project

### Patching Project to Begin in March; Chipseal Resurfacing to follow in Summer/Fall 2015

#### PURPOSE

This newsletter is to inform you of the upcoming full-depth permanent patching project along Davis Mill Road in Damascus, from Ride Road to Brink Road. This pavement system preservation project employs long term strategies to preserve and enhance the physical and operating conditions of the roadway system as it exists and assures a system serviceable for many years. This project falls under the County's Primary/Arterial Resurfacing Program.

#### INTRODUCTION

The Montgomery County Department of Transportation's (MCDOT) Division of Highway Services (DHS) maintains over 5,136 lane miles of streets and highways in the county's transportation system. As part of our pavement system preservation efforts, MCDOT initiated a new Pavement Management System in 2008. MCDOT recently completed a second countywide pavement condition survey of all county roads, identifying and rating the condition of each. This pavement management system has enabled the development of countywide roadway pavement repair schedules based on a formula based objective rating system coupled with budgetary parameters.

#### SCOPE OF PROJECT

Overall, the survey finds that the condition of the pavement on Davis Mill Road warrants a systematic approach of full-depth permanent patching followed by an application of Chipseal. Often referred to as "Tar & Chip," Chipseal is a pavement surface treatment that combines an overlay of liquid asphalt binder and a layer of small gravel. This treatment is designed to seal and preserve the pavement. A second newsletter with more information about the resurfacing stage of the project will be mailed as the project start date nears later this year.

#### PROJECT WORK PLAN

You may have noticed paint markings that outline areas for pavement replacement, such as those shown in the picture below. The markings enable us to estimate the quantity of asphalt needed for full depth patching and provide the locations of the distressed pavement. Crews will excavate the distressed pavement with a pavement milling machine or Gradall.



Typical paint markings

#### Full Depth Patching

Areas of pavement distress are excavated and replaced with hot mix asphalt. This method is used in isolated areas where pavement failures extend through the road base. Full depth patching restores the pavement's structural integrity and capacity to support vehicle loads. Further, patching will prevent water from infiltrating through the pavement and into the underlying road base, exacerbating the degree and extent of pavement deterioration. Failing pavement conditions are dynamic in nature and will worsen, nearly exponentially, under conditions such as harsh winters and wet summers. Patching with HMA will yield a service life of between 15 - 20 years.

There are two phases to full-depth patching:

First, the pavement is excavated and HMA base material is installed in 2 layers and compacted with a steel-wheeled roller. The patch is left approximately one-and-one-half (1 1/2) inches below the existing road surface to allow room for a layer of smooth surface HMA to be applied at a later time (within a few days).

Second, the surface HMA is placed either by machine or by hand, depending on the size of the patch, into the one-and-one-half (1 1/2) inch depression left by the base asphalt work. The asphalt is then compacted using a steel-wheeled roller. The final surface of the patch will match the level of the existing roadway and provide for a smooth ride.

#### SCHEDULE

This project is expected to begin in early March 2015, and should be completed within 3 weeks, weather permitting. Work hours will be between 7 am and 5 pm, Monday through Friday. *This project will be followed by chipseal resurfacing later this construction season.*

#### IMPACTS

Continuous traffic will be maintained at all times utilizing lane closures and/or alternating one-way traffic patterns. However, minor traffic delays may be experienced as our flaggers manually direct traffic safely through the construction zone. Minor traffic delays may also be experienced as we move our equipment around from one patch to another.

Street patching may necessitate temporary lane closures and parking restrictions. Signs will be posted identifying such restrictions. Access to residences will be available at all times; however, minor delays may be experienced as workers restrict traffic from freshly placed hot mix asphalt.

Generally speaking, this work is best characterized as noisy and disruptive. However, MCDOT staff will take all necessary steps to mitigate any inconveniences this work may cause.

Quality control for the entire project will be managed by County inspection staff to ensure that the project meets contract specifications.

*Thank you for your cooperation as we work to improve the county infrastructure for residents and users.*



Typical milling operation



Gradall Excavating



Loading



Compacting the sub-grade



New asphalt is placed and compacted

