



MCDOT NEWS

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

Hillandale Heights Permanent Patching Project

Project to Begin Soon; Work to Include Full-Depth Patching

PURPOSE

This newsletter is to inform you of the upcoming full-depth permanent patching project in the Hillandale Heights community. 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 Full-Depth Permanent Patching Program.

INTRODUCTION

The Montgomery County Department of Transportation's (MCDOT) Division of Highway Services (DHS) maintains over 5,123 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. Our 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. Part of Montgomery County's Pavement Management System includes structural permanent patching, which is a cost effective interim solution to maintain roadway structural integrity based on current funding allocations.

SCOPE OF PROJECT

Overall, the pavement conditions in Hillandale Heights were generally rated as fair, with some areas described as needing more attention. This rating meets the criteria for roadway preservation using Hot Mix Asphalt (HMA) full-depth patching.

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 either a roadway milling machine or Gradall (see pictures for examples).



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 ½) 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 ½) 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 June 2014, and should be completed within three to four weeks, weather permitting. Work hours will be between 7 am and 5 pm, Monday through Friday. However, the contractor will be permitted to work longer hours Monday through Friday and on Saturdays, if necessary, to maintain work schedules and/or expedite the completion of the project.

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 roadway users.



Typical milling operation



Gradall Excavating



Loading



Compacting the sub-grade



New asphalt is placed and compacted

