

# Pavement Management Technical Report

## *Summary*



## What is a Pavement Management System (PMS)?

The Pavement Management System (PMS) is a set of tools or methods that can assist decision makers in finding cost effective strategies for providing, evaluating, and maintaining pavements in a serviceable condition. It provides the information necessary to make these decisions. PMS consists of two basic components: A comprehensive database, which contains current and historical information on pavement condition, pavement structure and traffic; and another component that consists of a set of tools that allows us to determine existing and future pavement conditions, predict financial needs and identify and prioritize pavement preservation projects.



## Genesee County Pavement Management System

The Genesee County Metropolitan Planning Commission utilizes a pavement management system consisting of PASER and RoadSoft (maintained by the Michigan Technological University) that was developed by the University of Wisconsin-Madison Transportation Information Center and approved by the Michigan Asset Management Council for use in asset management reporting.

GCMPC utilizes the PASER program to collect road data and RoadSoft to evaluate and analyze the collected data. RoadSoft provides pavement management capabilities that:

- Develop and organize the pavement inventory
- Assess the current condition of pavement
- Develop models to predict future conditions
- Report on past and future pavement performance
- Develop scenarios for pavement maintenance based on budget or condition requirements

## What is the PASER system?

PASER is an acronym for “Pavement Surface Evaluation and Rating” system and is used to evaluate the surface condition of concrete and asphalt roadway pavement.

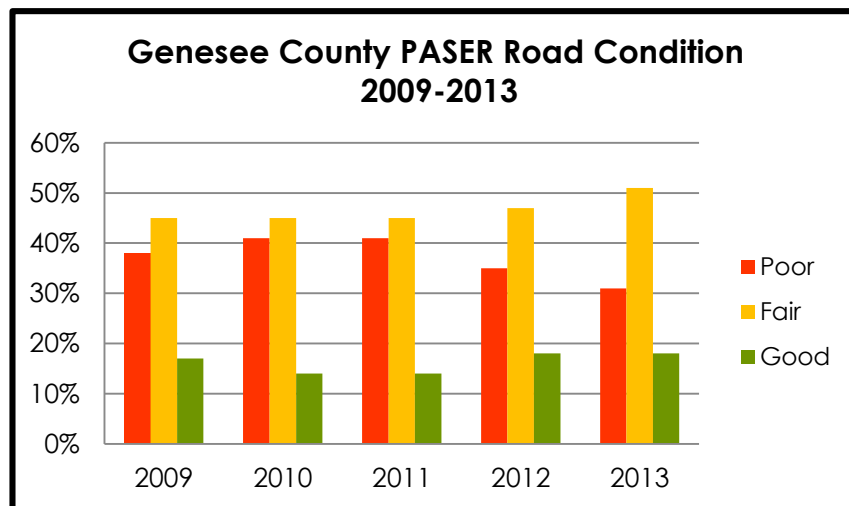
PASER Rating	Pavement Quality
1	Poor
2	
3	
4	
5	
6	
7	
8	
9	
10	Excellent

## Genesee County Road Network

There are approximately 5,483 paved lane miles in the Genesee County Road Network. This network includes all classes of roads such as federal-aid segments, state trunklines, highways and expressways, and locally-owned roads. Within this network, two main networks exist: the federal-aid network, and the locally-owned network. The federal-aid network is composed of: MDOT-owned roads; Genesee County Road Commission roads; and city and village roads. City and village roads are identified as the Genesee County Local Federal-Aid Road Network. This federal-aid network consists of approximately 2,696 lane miles. The funds allocated to the Genesee County Metropolitan Alliance are to be used to maintain the federal-aid network, and cannot be used on locally-owned road segments. Each local unit of government is allocated funds through Michigan's Public Acts of 1951, commonly known as "Act 51" funds, where a portion of the state gas tax is given to each local road agency in the state to be used for transportation-related purposes.

### Condition

The Genesee County Metropolitan Planning Commission with the assistance of the Genesee County Road Commission, Michigan Department of Transportation, City of Flint and the City of Burton has surveyed the federal aid network annually since 2003. The following comparison shows that from 2009 through 2011, the percentage of roads in poor condition increased, and the percentage of roads in good condition decreased. The percentage of roads in fair condition remained stable. However, we see that for 2012 and 2013, the percentage of roads in poor condition decreased, and the percentage of roads in good condition increased. The percentage of roads in fair condition also increased.



## Pavement Funding

The future of roads in Genesee County is greatly influenced by the available federal and state funding. From 2008-2012, Genesee County has spent over \$273 million on improving the transportation system. With the increased cost of road projects and the decrease of available funds, the county is using its Pavement Management Program as a tool in the planning process when selecting road projects. The chart below shows the distribution of funding for various activities in Genesee County.

