

Chip Seal Fact Sheet

“Chip Sealing” is a common pavement maintenance practice that extends pavement life and provides a good driving surface. Since some Madison Township Residents may not be familiar with the chip seal construction method, this fact sheet answers some frequently asked questions.

How are Chip Seals Different from Asphalt Overlays?

The difference is in the construction method. Hot Mix Asphalt pavement is produced by heating liquid asphalt and mixing it with aggregate, with the mix then spread and compacted to form a durable road structure and riding surface. *Chip Sealing* uses the same ingredients as asphalt concrete paving, but the construction method is different. With chip seals, a thin film of heated asphalt liquid is sprayed on the road surface, followed by the placement of small aggregates ("chips"). The chips are then compacted to orient the chips for maximum adherence to the asphalt, and excess stone is swept from the surface. The ingredients of hot mix asphalt and chip seals are the same; only the construction methods are different.

Why Use Chip Seals?

1. Chip seals provide the Township with the opportunity to maintain the roads for very low cost.
2. A chip seal is about one fourth to one fifth the cost of a conventional asphalt overlay.
3. By extending the time between asphalt overlays, chip seals result in lower costs over the long term.
4. By placing a chip seal sooner than an asphalt overlay would be placed, the traveling public benefits from roads maintained in better condition.
5. Chip seals enhance safety by providing good skid resistance.
6. Chip seals provide an effective moisture barrier for the underlying pavement against water intrusion by sealing cracks in the pavement.
7. Chip seals prevent deterioration of the asphalt surface from the effects of aging and oxidation due to water and sun.
8. Madison Township has successfully used chip seals for over 25 years to maintain our rural roads.
9. Chip seals will help eliminate black ice.
10. In hot weather, chip seals re-seal cracks by flowing back together.

It's Cost Effective

Cost savings with chip sealing add up when compared with other road maintenance measures.

- Chip seal=\$1.25 per square yard.
- Thin overlays=\$12 per square yard.
- Resurfacing=\$20-\$25 per square yard.
- Reconstruction=\$50-60 per square yard.

Maintenance Cost Savings Over the Life of a Street

Pavement rating changes over the life of a street. Chip sealing as part of a pavement maintenance program keeps streets in good condition for longer. The surface treatment will last 7-10 years.

Disadvantages are Temporary

Chip sealing generates excess gravel dust, but the process is short-lived and lasts only a few weeks.

Note: Madison Township will come back to the road 3 to 6 days after the initial application to sweep up any excess chip from the roadway. Depending on the weather, water may be applied to the road prior to removing the chip, to ensure the majority of the excess chip is removed.

Benefits of Chip Sealing

- Saves thousands of dollars every year.
- It's quicker than street resurfacing or reconstruction.
- The process is completed in a few weeks and will give up to another 10 years of life to the road.