

Chip Seal Fact Sheet

A Chip Seal (surface treatment) is a thin preventive maintenance overlay consisting of a heavy spray application of asphalt emulsion followed by a single layer of clean, uniform sized crushed stone ("chips").

As asphalt pavement ages and is subjected to traffic loads, it oxidizes, becomes more brittle, and develops cracks in the pavement structure. A chip seal serves to do the following:

- Chip seals provide the Town with the opportunity to maintain the roads for very low cost.
- A chip seal is about one fourth to one fifth the cost of a conventional asphalt overlay.
- By extending the time between asphalt overlays, chip seals result in lower costs over the long term.
- By placing a chip seal sooner than an asphalt overlay would be placed, the traveling public benefits from roads maintained in better condition.
- Chip seals provide an effective moisture barrier for the underlying pavement against water intrusion by sealing cracks in the pavement.
- Chip seals fill and seal cracks on old pavement, preventing deterioration of the asphalt surface and minimizing the effects of aging.
- Chip seals provide an anti-glare surface during wet weather and an increased reflective surface for night driving.
- Chip seals provide a highly skid-resistant surface, particularly on wet pavement.

The process goes as follows:

The road surface is properly cleaned of debris and any holes are patched.

The distributor truck applies the asphalt emulsion.

A chip spreader applies crushed rock from an attached dump truck to the top of the asphalt emulsion.

Rubber tire rollers follow closely behind, pushing the chips down into the binder. It may take several passes to complete setting the rock.

Power sweepers remove surplus crushed rock from the surface within a few weeks of application.

In hot weather, chip seals re-seal cracks by flowing back together.