

**HISTORY:** LL Pelling was started in 1949 and quickly became one of Iowa's premier chip sealing contractors. Seeing a unique opportunity in the business, LL Pelling started, and still operates, the only contractor-owned bituminous blending facilities in Iowa. Through the capabilities of blending and delivering our own state certified bitumen cutbacks we increased production, quality and service.



## What is Chip Seal?

Chip seal is an application of asphalt bitumen over a prepared surface covered by a thin layer of aggregate. The many differences are that the bitumen can either be an MC (medium cure asphalt) or an emulsion (asphalt made by milling with water). Both are good products. There can also be a variation of the aggregate from pea gravel, steel slag, or a limestone chip (which is the most common used aggregate in this area).

Please contact us at 319-626-4600 for more information or a free personal estimate from an LL Pelling Professional.



To book a free, personalized estimate call or email us today:  
**319-626-4600** or  
[chipseal@llpelling.com](mailto:chipseal@llpelling.com)

### LOCATIONS

**Corporate Office**  
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Fax: 319-626-4605

**Cedar Rapids Plant**  
3350 60th Ave.  
Cedar Rapids, IA 52404  
Phone: 319-632-3150

**Marion Plant**  
3765 3rd Ave.  
Marion, IA 52302  
Phone: 319-377-8615

**Coralville Plant**  
3149 340th St. SE  
Iowa City, IA 52240  
Phone: 319-351-3068

**Pavement Marking Office**  
3750 J Street SW  
Cedar Rapids, IA 52404  
Phone: 319-362-8037

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## WHY CHIP SEAL?

Chip seal is the most cost effective preventive maintenance strategy and the best value for your maintenance dollar. It is a low cost alternate to either Asphalt or Portland cement concrete pavements. When the base is prepared properly, chip seals can be used as the first stage in preparing for an asphalt overlay of an existing rock surface. Chip seals can also be used as a preservation tool to an existing pavement and they prolong the life of pavements that are still structurally sound but have some surface distress.

### Benefits:

- Protects from oxidation
- Improves surface texture and traction; adds skid resistance
- Cost-effective
- Provides a moisture barrier by preventing water from seeping into cracks or into existing base
- Adds additional strength to the pavement
- A chip seal is a fraction of the cost of a conventional asphalt overlay
- Gives new life to weathered surfaces
- Reduces Maintenance costs thus saving money for other projects
- Beautifies pavement
- Expected to provide at least 3-5 years of service before a reapplication is necessary

**Importance of Base Preparation:** When considering a chip seal the preparation of the base or sub grade is one of the key elements of the process. All pavements are only as good as the base they are placed on; this is even more relevant with a chip seal. With chip seal, there is little structural strength in the application, so when building a stone base the proper thickness and moisture is vital in aiding in the compaction.



## OPTIONS

### LL Pelling offers three different seal coat options:

#### OPTION A:

- 1. Base Repair** – During this step, we will scarify (mill off) and pulverize (grind up) the existing street surface. Water will be furnished as required to compact and reshape the surface.
- 2. Prime** – The newly reshaped and compacted base is primed with MC 30. LL Pelling uses MC 30 because it can be applied at cooler temperatures (50-250 °F) than paving-graded asphalts.
- 3. Single Seal Coat (Spraying Asphalt)** – In this step an asphalt distributor truck sprays the designated area with MC 3000 liquid asphalt. LL Pelling uses MC 3000 as the asphalt binder because of its flexibility both in application and as a surface.
- 4. Spread Aggregate** – After the distributor moves forward to spray asphalt, the chip spreader will immediately follow behind it and apply a single layer of uniformly sized aggregate to the still hot bitumen.
- 5. Rolling** – The new chip sealed surface is then rolled by a rubber-tire roller to seat (push) the aggregate into the asphalt. Using the rubber-tire roller ensures the aggregate is forced down *into* the liquid asphalt. The process is finished off with a steel roller.

#### OPTION B:

- 1. Prep Work** – Our crews will prepare the pavement by using a power broom to clean the surface.
- 2. Single Seal Coat (Spraying Asphalt)** – In this step an asphalt distributor truck sprays the designated area with MC 3000 liquid asphalt. LL Pelling uses MC 3000 as the asphalt binder because of its flexibility both in application and as a surface.
- 3. Spread Aggregate** – After the distributor moves forward to spray asphalt, the chip spreader will follow immediately behind it and apply a single layer of uniformly sized aggregate.
- 4. Rolling** – The new chip sealed surface is then rolled by a rubber-tire roller to seat (push) the aggregate into the asphalt. Using the rubber-tire roller ensures the aggregate is forced down *into* the liquid asphalt. The surface is then rolled with a steel roller for final compaction.

#### Double Sealcoat Option:

A combination of options A and B.

## ADVANTAGES

### Preventative Maintenance

Pavement preservation treatments done at the right time will prolong the service life of the pavement and most importantly save money over the life of the pavement. Subsequent seal coat treatments can be quickly applied, which will result in fewer disruptions to the traveling public as compared to rehabilitation or reconstruction.

### Turn Your Chip Sealed Road into an Asphalt Overlay

Once a sealcoat surface has been established and has been maintained for several years, you can look at overlaying it with asphalt. After several years you have essentially built an asphalt base of 3/8 of an inch at a time, which minimizes the need for an overly thick asphalt overlay.

#### Advantages:

- Finalizes your pavement structure
- Beautifies the pavement
- Lower maintenance cost than typical chip seal maintenance
- Less expensive than complete removal and replacement
- Adds structural strength to the existing surface
- Re-establishes proper grade
- Has an increased life expectancy of 16-20 years

### TIPS

#### Tips to Remember When Your Road is Being Chip Sealed:

**Disrupted access to your driveway** may occur for a few minutes, but LL Pelling crews will work to minimize delays. The new surface can be driven on immediately, but slow speeds are required.

**Expect some loose rock** immediately following the chip sealing. The roadway surface will improve over several weeks as the surface stabilizes, resulting in a stronger, and more durable roadway.

**We ask for your patience** as there are many factors involved with the chip sealing process, including variable weather.

### CONTACT US

If you have comments or questions regarding services provided by our chip seal crew, please feel free to contact us by e-mail or phone.

**EMAIL:** [chipseal@llpelling.com](mailto:chipseal@llpelling.com) **PHONE:** 319-626-4600