

**Q** What is Pavement Preservation?

**A** Pavement preservation is a strategy to enhance pavement performance by extending the life of existing pavements, improving safety, and meeting user expectations.<sup>1</sup>

**Q** What are the various Pavement Preservation Options?

**A** While there are a variety of asphalt pavement options, the primary pavement preservation choices are:

- **Thinlays™** are hot mix asphalt pavements that are placed in a thin overlay of less than 1.5 inches. They can be placed as thin as 5/8 of an inch, and are typically 3/4 to 1 inch thick.
- **Micro-Surfacing** is a technique where asphalt binder and aggregate are sprayed onto an existing pavement. Micro-Surfacing is placed at less than 3/8 inches.
- **Slurry Seal** is another technique where asphalt binder and aggregate are sprayed onto an existing pavement. Slurry Seal is placed at less than 1/4 inches.
- **Chip Seal and Cape Seal** are techniques similar to Micro-Surfacing. Chip Seal is a technique where asphalt binder is sprayed onto an existing road surface and fine aggregate is immediately placed on top of it. Cape Seal is a technique where a Chip Seal is overlaid with a Micro-Surfacing treatment.

**Q** When should I choose each option?

**A** Pavement preservation is best done when you choose the right treatment for the right road at the right time. It is important to know the condition of your road before deciding which treatment is the right one. Pavements that are not displaying any distress are candidates for slurry seal, micro-surfacing, and chip / cape seals. Distressed pavements, provided the distress is not major, are candidates for Thinlays™. Even severely distressed pavements can be preserved with Thinlays™ - these would require milling to remove the distressed material first.

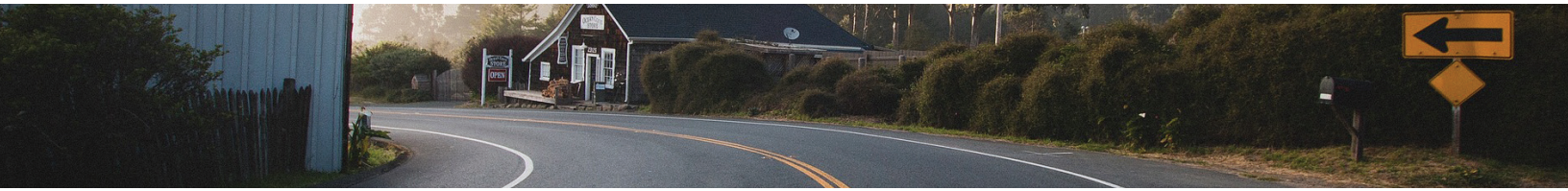
**Q** What option is most cost effective?

**A** Studies show that Thinlays™, have the lowest overall annual cost. Thinlays™ have an annual cost per lane mile that is lower than both Micro-Surfacing and Slurry Seal. Asphalt Producers in New Jersey can offer a variety of Thinlays™ options suited to a customer's needs.

**Q** What option is best to improve ride quality?

**A** Ride quality is measured by the International Roughness Index, or IRI. Thinlays™ provide an average improvement to pavement smoothness of 18%-36%. Micro-Surfacing and Slurry Seal treatments will typically improve smoothness by less than 10% and often will provide no improvement.

<sup>1</sup>Moving Ahead for Progress in the 21st Century (MAP-21) Act, U.S. Statutes at Large 126 (2012): 405-988



**Q** Are there safety issues I should consider?

**A** Professional Engineers often consider the Skid Resistance of a roadway as an important safety factor. Thinlays™ have been shown to be skid resistant. While Micro-Surfacing and Slurry Seals can also provide improved skid resistance, the roughness of these surfaces is noisier and less pedestrian-friendly.

**Q** What option is best for residential areas where noise may be a concern?

**A** Noise surveys of various pavement treatments have indicated that Thinlays™ treatments have the lowest level of On Board Sound Intensity, which measures the noise level inside a vehicle. Traditional Hot Mix Asphalt provides only slightly higher noise readings while Micro-Surface and Slurry Treatments have been proven to be significantly louder.

**Q** I care about the environment, are any of these options environmentally friendly and sustainable?

**A** Thinlays™ use 100% recycled/recyclable materials for environmental sustainability.

**Q** What do the experts think about Pavement Preservation?

**A** "...thin overlays and chip seals have superior performance, compared to slurry seal and crack seal." FHWA Tech Brief (FHWA-HRT-11-049)

"The immediate benefit to ride quality ranges from an 18 to a 36% decrease in International Roughness Index (IRI), a 5 to 55% reduction in rut depth, and a 1 to 10% improvement in the pavement surface condition rating." Analysis of Long-Term Effectiveness of Thin Hot-Mix Asphaltic Concrete Overlay Treatments (Transportation Research Record No. 1940)

"It is significant to note that the Minnesota Department of Transportation received the Asphalt Pavement Alliance Perpetual Pavement Award three years in a row from 2002 through 2004, and that in each of these pavements, thin overlays played a vital role in ensuring the longevity of the pavement structure." Thin Asphalt Overlays for Pavement Preservation (NAPA Information Series 135)

**Q** Where can I get more information ?

**A** New Jersey Asphalt Pavement Association  
[njapa.com](http://njapa.com)

National Asphalt Pavement Association  
[asphaltpavement.org](http://asphaltpavement.org)

[Thinlays™ Position Paper SR-210](#)

[Thinlays™ Information Series 135](#)

[Federal Highway Administration \(Tech Brief\)](#)

International Slurry Surfacing Association  
[slurry.org](http://slurry.org)

Pavement Preservation and Recycling Alliance  
[ppralliance.org](http://ppralliance.org)