

Pavement Management & Asset Preservation 101



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HOLBROOK
ASPHALT CO.

What is Pavement Preservation?

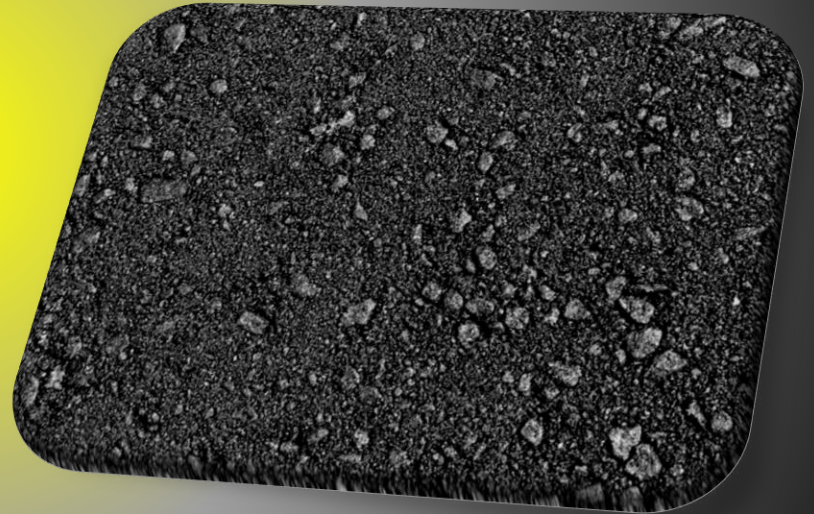
- Applying relatively low-cost treatments to roads in fair to good condition to extend their service life.
- Use of treatments early in the pavement life (and through out the pavement life) to extend the time until major rehabilitation or reconstruction.
- In layman's terms, it's the process of preserving your pavement assets such that you achieve maximum design life.



Understanding Pavement Preservation

The Basics of Asphalt Preservation

- Asphalt pavement (or Asphalt cement) is made up of primarily two components:
 - Aggregate – rock
 - Asphalt Binder – “glue” that holds the rock in place



Understanding Pavement Preservation

The Basics of Asphalt Preservation

- The key to extending pavement life is to preserve the asphalt binder.
STOP OXIDATION!
 - Oxidation causes:
 - Raveling (loss of bond between aggregate and binder)
 - Cracking



Understanding Pavement Preservation

The Basics of Asphalt Preservation

- Primary causes of OXIDATION:

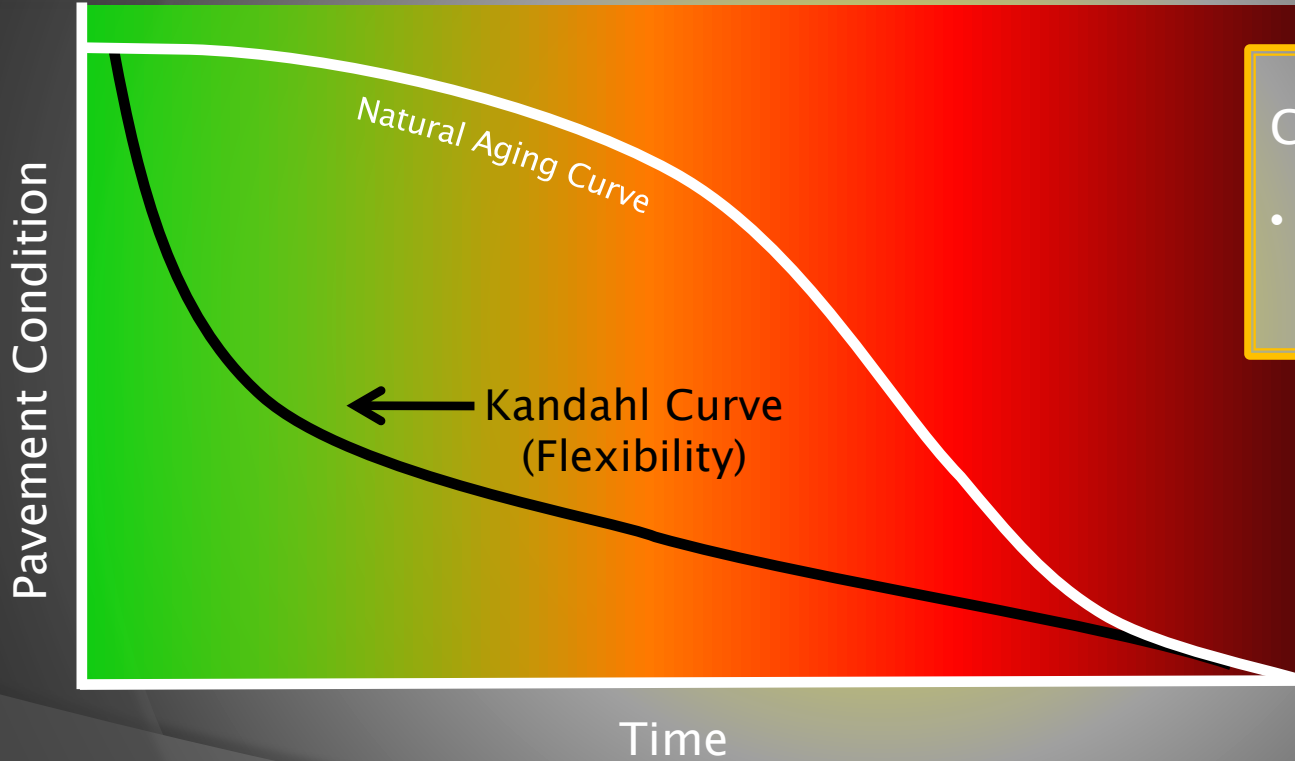
- UV Rays



- Moisture



Pavement Life Cycle



Common mistakes:

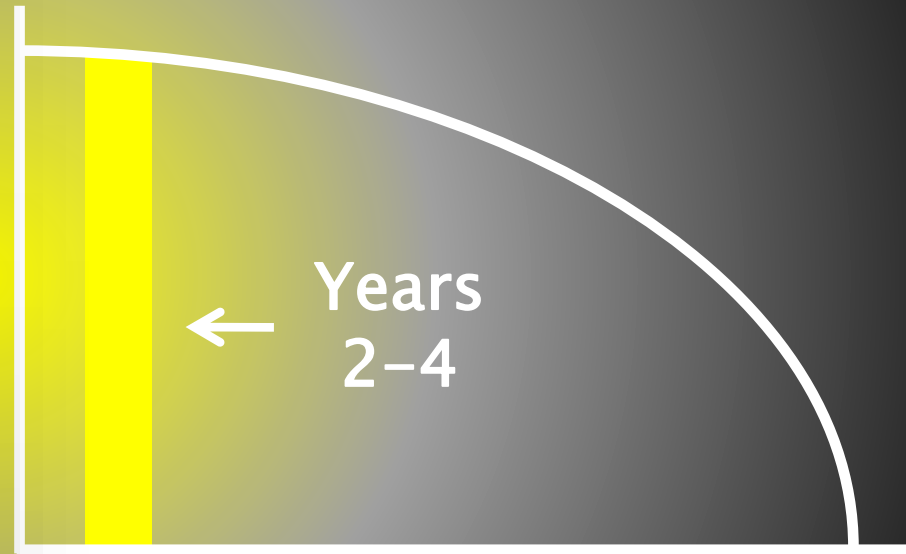
- Misunderstanding of pavement life cycle.



Foundation for
Pavement
Preservation

...The oxidative aging of pavements begins at the time of construction and continues throughout a pavement's life. However, **most oxidative aging occurs within the first two to four years of service life.**

Excerpt from FP2 press release:
FP2 Sponsors Research Evaluating Emulsified Sealer/Binders For
Extending Asphalt Pavement Life



Pavement Preservation

High Density Mineral Bond (HA5)

Price: \$\$\$\$

Pavement Extension: ★★★★★

Public Acceptance: ★★★★★

Summary: Specifically for local roads, HA5 is comprised of a mixture of a dense mixture of fine aggregates and polymers suspended in an asphalt emulsion. Reduces cracking and raveling by effectively preserving the existing asphalt binder. Effectively deflects UV rays. Depending on pavement condition, installations guaranteed for 5-years. Aesthetically pleasing “surface friendly” finish.

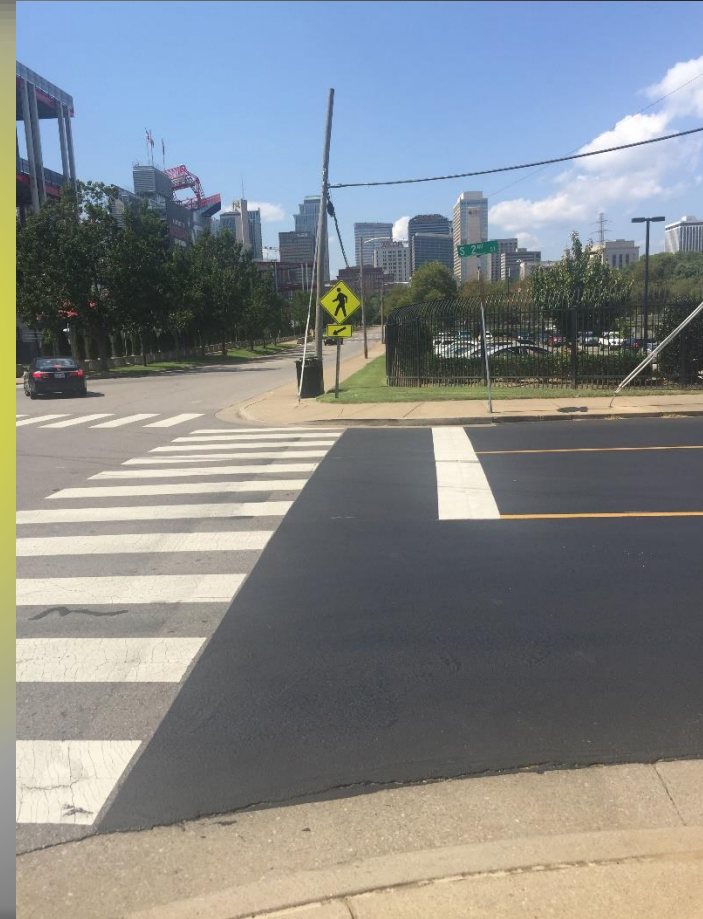


Fort Worth, TX



HA5 High Density Mineral Bond

Nashville, Tennessee



HA5 High Density Mineral Bond

Vaquero HOA – Westlake, TX



HA5

High Density Mineral Bond

Dallas, Texas



HA5 High Density Mineral Bond

HA5 High Density Mineral Bond

Alpine, UT



4-year old installation Heavy Snow Conditions



Roswell, GA (Atlanta Metro)



HA5 High Density Mineral Bond


Spanish Fork, UT





After 6
years

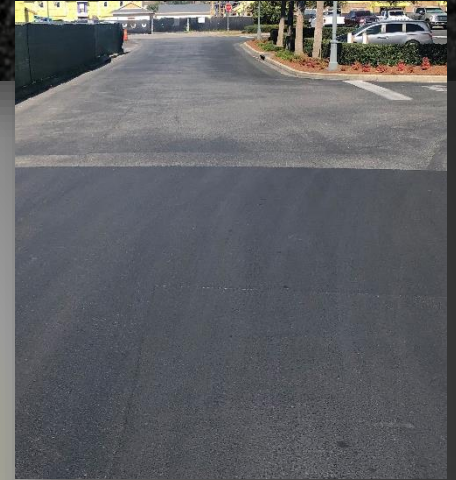




Premium seal coat
installation: Feb 2018

The Villages®

HA5 installation: Feb 2018



Age of Treatment Installation:
Picture taken Jan. 31, 2020
(2 YEARS)

Original paving of streets: 1999

Close-up view

Premium seal coat installation:
May 2009

Seal coat



Painted Desert
Age of Treatment Installation:
2009 (4 YEARS - 2013)

High Density Mineral Bond

HA5

HA5 installation: May 2009

Pavement Installation: 2003



HA5

Coventry Lane
Age of Treatment Installation:
2006 (Year 2011 – 5 YEARS)

Actual Crack Ratio: **0.013**

Average Crack Ratios of Similar Age
Pavement: **0.040**



THANK YOU!

I Have A
Question

IPS 

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ASPHALT CO.