

## Before it cracks: Early life cycle strategies for Pavement Preservation



Ken VanDomelen- Coast Pavement Services

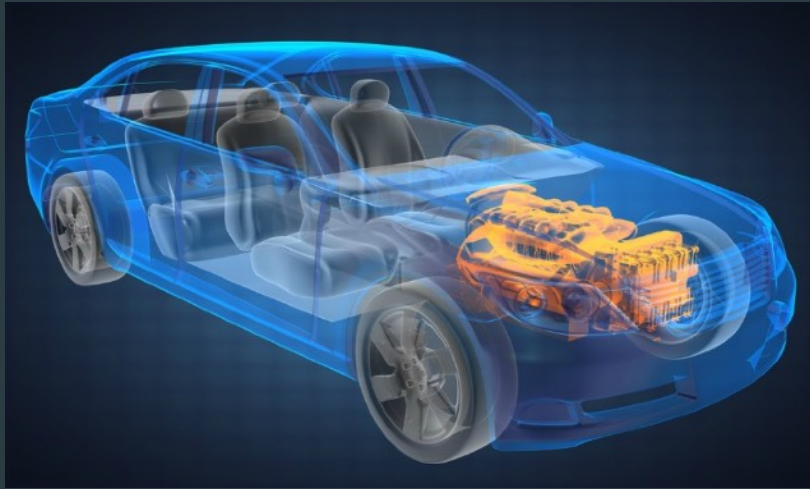
# When is Early stage Pavement Preservation

- ▶ Asphalt will lose the most amount of flexibility in its first two years of life!
- ▶ 75 PCI or above
- ▶ 1-7 year old pavement



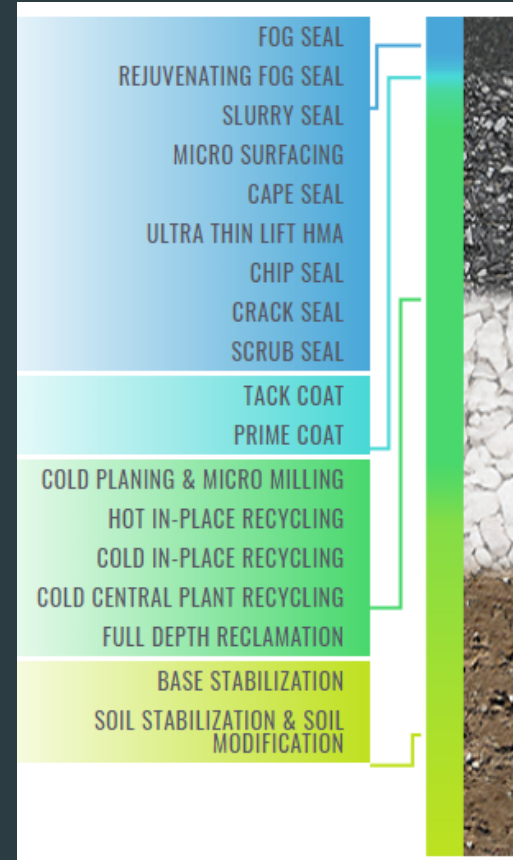
Clear coat for Paint and  
fresh lubricant for engine

Sunscreen for a babies skin:  
Preservation for 1-5 year old  
asphalt pavement



# Treatment Options for Early life strategies

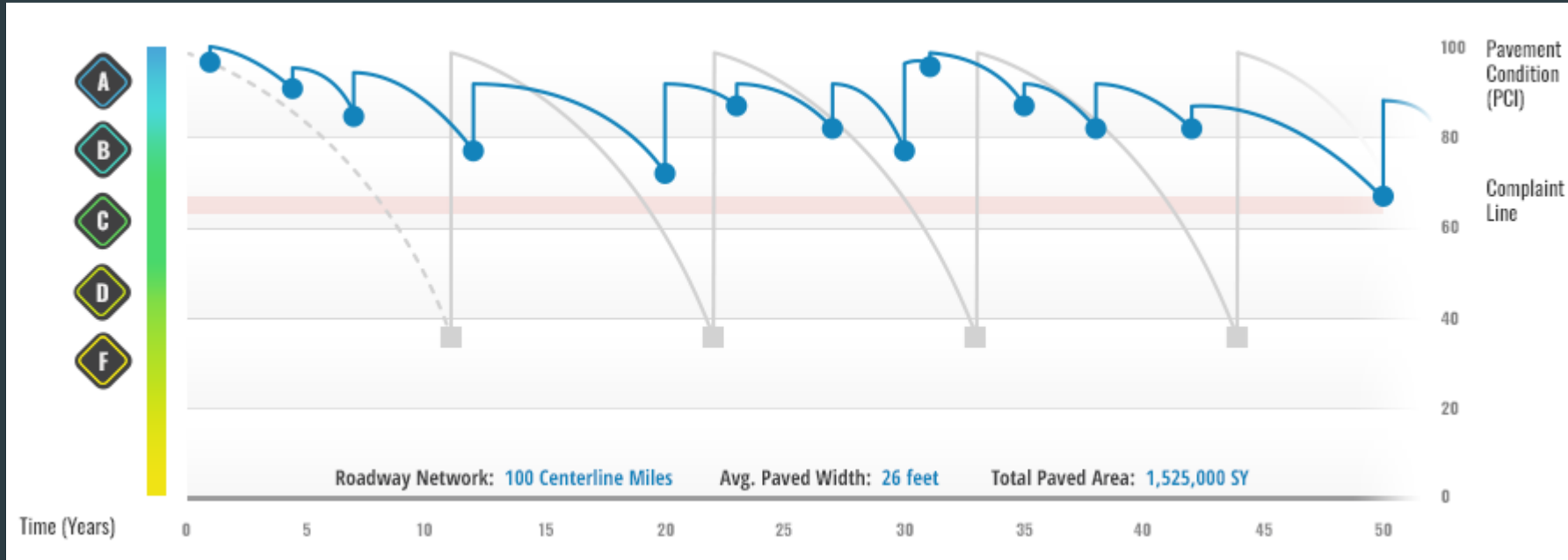
- ▶ 1. Fog Seals
- ▶ 2. Rejuvenating Fog Seals
- ▶ 3. High Density Mineral Bond
- ▶ 4. Slurry Seals
- ▶ 5. Chip Seals
- ▶ 6. Heavy Duty Sealcoats



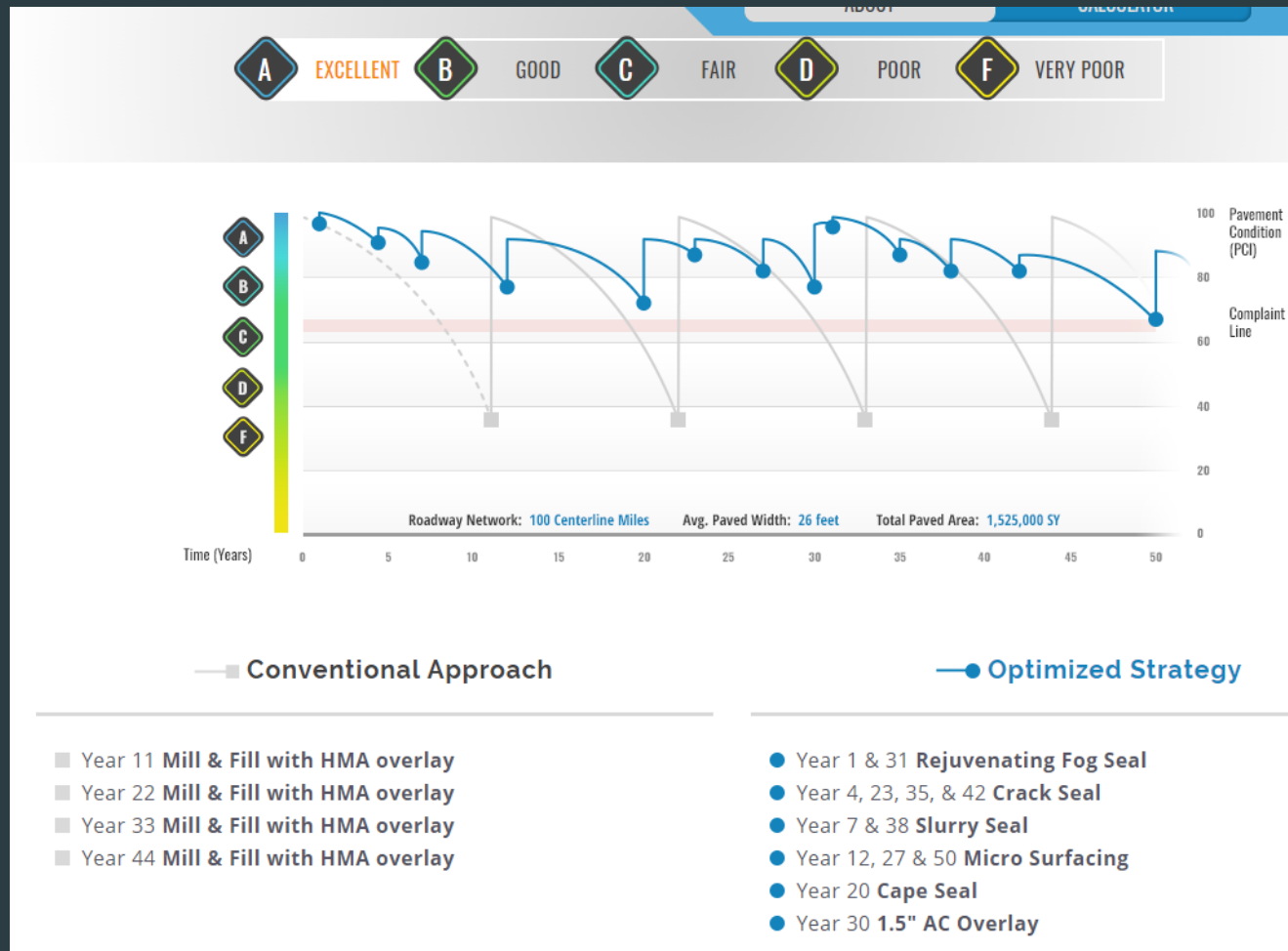
# Why Not: Top five reasons for delaying Pavement Preservation

- ▶ 1. It still looks good- Nobodies complaining about a new road
- ▶ 2. We have bad roads to fix- People are complaining
- ▶ 3. Our budget is tight already- Where's the money coming from?
- ▶ 4. I don't want to shut down traffic on a good road. Hassle factor
- ▶ 5. Traffic markings are still good.

# The best reason why: Extending the good - Breaking the cycle of chasing cracks.



# Life cycle Analysis: Two scenarios



# The City Of Medford: Case study of success





# Replay: A green simple alternative for rejuvenating and sealing in the good

- ▶ Open to traffic in 30 minutes
- ▶ Does not reduce skid resistance
- ▶ No need to restripe
- ▶ Keeps pavement gray reflecting heat from the surface
- ▶ Reverses oxidation by introducing SBBS polymers
- ▶ Penetrates to 1 ¼ inches of asphalt surface
- ▶ Application in temperatures down to 20 Degrees with dry pavement
- ▶ Night time applications
- ▶ No sand blotting

# Proven in the lab and on the pavement

## Dr. Shakir Shatnawi

- *World Renowned Pavement Authority*
- Former California Dept. of Transportation (Caltrans) Pavement Engineer
- President of Shatec Engineering Consultants, LLC.
- 29 Years of professional engineering
- FHWA, Caltrans, Academia, Industry, etc.
- Over 200 Technical Publications
- *The Expert's Expert*

# Other pavement treatments to consider before it cracks.

- ▶ GSB-88 Rejuvenating Fog Seal -Penetrating
- ▶ Reclamite Rejuvenating Fog Seal- Penetrating
- ▶ HA5- High Density Mineral Bond- surface seal
- ▶ Standard Slurry Seal- surface seal
- ▶ Standard Chip Seal -surface seal
- ▶ Onyx-Axys Mastic Sealer - surface seal
- ▶ Liquid Road- surface seal

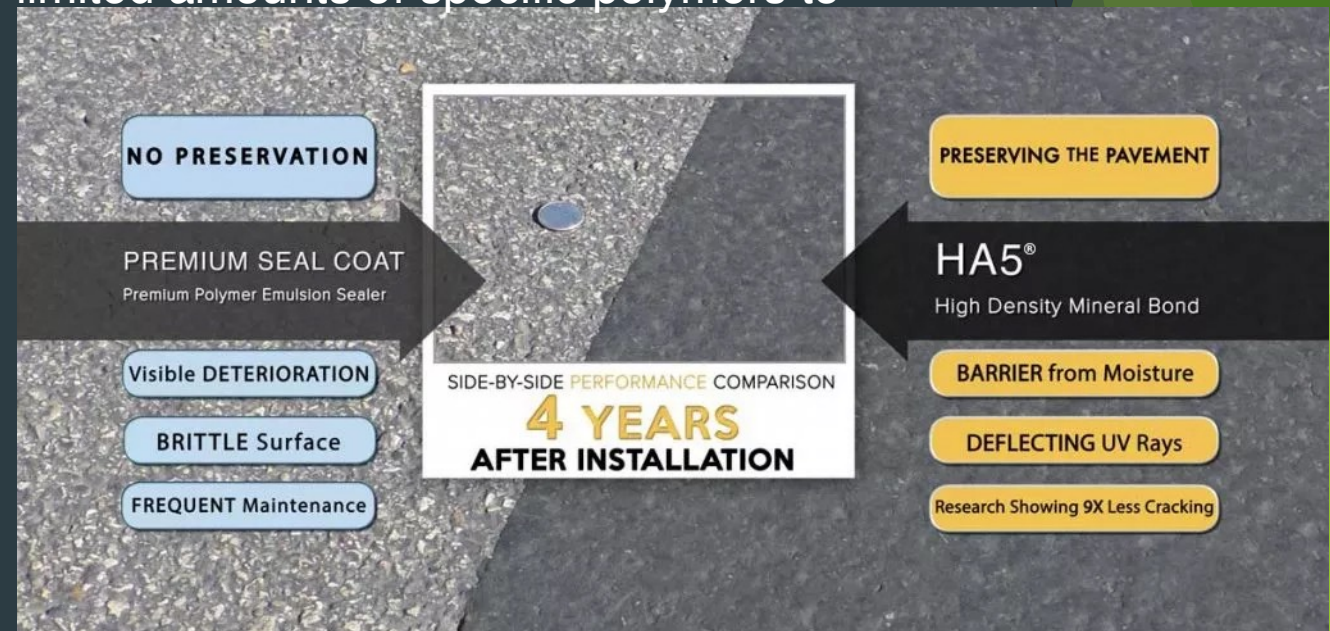
# What is a High Density Mineral Bond?

HA5 is arguably the fastest-growing trend in pavement preservation, now in use by over 135 public agencies.

Meeting the stringent demands of a High Density Mineral Bond, HA5 is uniquely emulsified with a near neutral charge that is able to hold a unique blend of fine aggregates.

Limiting oxidative damage from moisture is fundamental to HA5's preservation qualities. But just as critical to the prevention of oxidative damage from moisture is preventing oxidative damage from Ultraviolet (UV) radiation.

HA5 combats oxidation from UV by including limited amounts of specific polymers to reflect damaging UV rays.



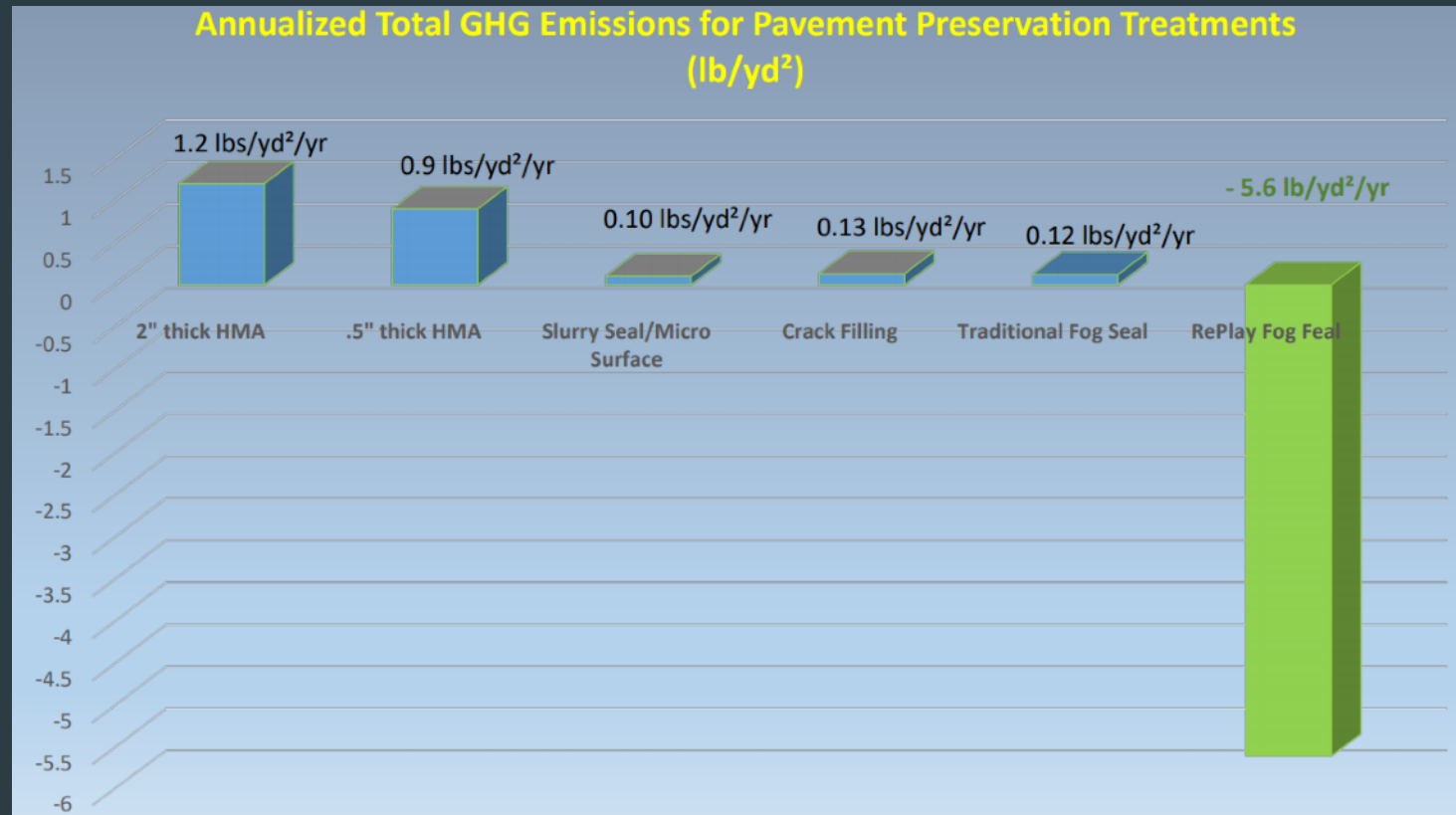
Where does it fit?



# Does color matter? Public perception vs. cooler pavement and longer life



# Environmental Impacts of Pavement Preservation



# Do it yourself pavement preservation





# Final thought and Questions

“The **first five years** have so much to do with how the next 80 turn out.”

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the **Ounce**  
ounceofprevention.org

- Bill Gates Sr., Co-Chair  
of the Bill and Melinda  
Gates Foundation