Asphalt Pavement Preservation

2019 Complete Streets and Tech Conference

APWA Southern California Chapter
American Public Works Association
Carson, CA

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“right treatment on the right pavement at the right time”
What is Pavement Preservation?

PAVEMENT PRESERVATION IS WORK THAT IS PLANNED AND PERFORMED TO IMPROVE OR SUSTAIN THE CONDITION OF A ROADWAY IN A STATE OF GOOD REPAIR.

INCORPORATING PAVEMENT PRESERVATION INTO YOUR AGENCIES OVERALL PRACTICE OF MANAGING A PAVEMENT NETWORK IS A COST-EFFECTIVE WAY TO EXTEND PAVEMENT LIFE, ENHANCE SAFETY, INCREASE PUBLIC SATISFACTION, AND IMPROVE PAVEMENT PERFORMANCE.
Leading Causes of Pavement Deterioration

- Lack of Preventative Maintenance
- Utility Trenches
- Truck Loads
- Environmental Elements
- Poor Quality Construction
- Poor Quality Materials
- Poor Quality Control
## Pavement Condition Survey

<table>
<thead>
<tr>
<th>CONDITION CATEGORY</th>
<th>PAVEMENT CONDITION INDEX (PCI)</th>
<th>GENERAL TREATMENTS STRATEGY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upper Limit</td>
<td>Lower Limit</td>
</tr>
<tr>
<td>Excellent</td>
<td>100</td>
<td>86</td>
</tr>
<tr>
<td>Good</td>
<td>85</td>
<td>75</td>
</tr>
<tr>
<td>Fair</td>
<td>74</td>
<td>58</td>
</tr>
<tr>
<td>Poor</td>
<td>57</td>
<td>40</td>
</tr>
<tr>
<td>Failed</td>
<td>39</td>
<td>0</td>
</tr>
</tbody>
</table>
Why Pavement Preservation?
When to Do It?

![Graph showing the benefits of pavement preservation](image-url)
Pavement Preservation “How”

Focus on pavement preservation practices associated with:

- Quality treatments
- Quality specifications
- Quality materials
- Quality control

The goal is extending the concept of “right treatment on the right pavement at the right time” so that it includes quality treatments that are constructed the right way.
right treatment on the right pavement at the right time

- Review your Pavement Management Study
- Select Streets to be Reviewed
- Note Selected Street PCI’s and Treatment Recommendations
- Field Review to Verify PCI’s and Treatment Recommendations
- Make Adjustments as Needed
- Determine if the Time is Right
- Finalize List of Streets
- Select the Right High Quality Treatment
Flexible Pavement Preservation Treatments

- RUBBERIZED CRACK SEALING AND FOG SEALING
- SLURRY SEALING (REAS AND EAS)
- MICROSURFACING
- CHIP SEALING AND CAPE SEALING
- ULTRA-THIN BONDED WEARING COURSE
- MILL AND FILL
Early Treatment Failures
(A Breakdown in the Process)

- Wrong Treatment Selected
- Poor Specifications
- Improper Mix Design
- Poor Quality Product
- Limited or No Quality Control
- Poor Surface Preparation
- Poor Placement Practices
- Limited or No Inspection
In Summary

✓ Use your Pavement Management Study as a Guide

✓ Update your Pavement Management Study every 5-Years

✓ Determine if the Time is Right

✓ Determine if the Treatment is Right

✓ Select a Quality Treatment

✓ Verify the Treatment Contains Quality Materials

✓ Incorporate Project Quality Control Procedures/Methods

✓ Inspection, Inspection, Inspection
Some Final Thoughts

- Consider Multi-Year Contracts
- Take Advantage of Piggyback Contracting Prices
- Better and Longer Lasting Treatments Tend to Cost More
- You Get What You Pay For
- Not Sure About a Treatment, Do a Pilot Project