Preservation vs. Renewal

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Objectives of Presentation

• Qualify the presentation title
• Treatment vs. Treatment Strategy
• Timing is everything!
• Why do we need a plan?
• Thinking Strategically.
Preservation vs. Renewal

Not combatants but allies in our duty to preserve our assets as a legacy for future generations
<table>
<thead>
<tr>
<th>Treatments</th>
<th>vs.</th>
<th>Strategies</th>
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<tr>
<td>Chip seal</td>
<td></td>
<td>A <em>combination</em> of one or more <em>treatments</em> applied to an asset element in</td>
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<td>Micro-surfacing</td>
<td></td>
<td>response to some condition or policy based <em>trigger</em>, over a defined</td>
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<td>Thin overlay</td>
<td></td>
<td>analysis <em>period</em>.</td>
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<td>Fog seal</td>
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<td>Slurry seal</td>
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<td>Grinding</td>
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<td>Dowel retrofit</td>
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</table>
Typical Reactive Treatment Strategy
Preservation Treatment Strategy
Hybrid Preservation Treatment Strategy
Timing is Everything

• Critical window of opportunity
• Overshooting the window can:
  – Shorten the treatment’s expected life
  – Render treatment inappropriate
• Properly triggered treatments will:
  – Effectively utilize funding
  – Extend pavement life
  – Curtail the need for high impact treatments
• Determining the right timing is the key.
Why do we need a Plan?

- Right treatment, on the right road at the right time
- Tighter funding constraints
  - legislators, planners & upper management
- Traditional reactionary approach proven suboptimal
- Integration with pavement management program
- Effectiveness of preservation attracting more funding.
Let’s Think Strategically

• Success in marketing pavement preservation
• The next question...how much to dedicate?
• Strategic decision support from an operational level decision support tool.
Let’s Think Strategically cont..

- Analyze our network with dedicated funding
- Find the optimal recommendation for several levels of dedicated funds within a series of constant dollar budget scenarios
- Plot the average network condition after 10 years for each level of dedicated funds.
Let’s Think Strategically… The results

Average Network Condition After 10 yrs

- 0 P_100 RENEW
- 20 P_80 RENEW
- 40 P_60 RENEW
- 60 P_40 RENEW
- 80 P_20 RENEW
- 100 P_0 RENEW

Budget Scenario
Let’s Think Strategically... A little closer look

Average Network Condition After 10 yrs

Optimal Preservation Funding

Budget Scenario

Average Network Condition

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Summary

• Preservation and Renewal are allies that need to be recognised separately by your management system.
• Policy based triggering becoming more prevalent.
• Management systems need to:
  – maintain dedicated funding for preservation and renewal treatments.
  – recognise when pavement preservation is no longer applicable.
  – Integrate preservation and renewal treatments into viable hybrid treatment strategies.
• Strategic thinking must be used to ensure proper funding is dedicated to preservation treatments.