Data Collection and Reporting

- Pavement Management Systems
- MicroPaver
  - Agencies have used for 30+ Years.
  - APWA and Army Corp of Engineers Standard
- StreetSaver
  - Developed through Texas Transportation Institute for Bay Area MPO Metropolitan Panning Commision
  - RTC uses to evaluate Regional Network
Project Selection Process

Integrated Elements

• **Condition Survey Calibration**
  – PCI from Agency Pavement Management Systems (Can’t be more than 3 years old)

• **Uniform Regional Road Categories**
  – Arterial, Collector, Rural Highway, Industrial

• **Regional Treatments**
  – Slurry seal, micro-surfacing, thin overlay, patching
Project Selection Process

Program Elements

• Rehabilitation / Reconstruction
  – PCI 0-50
  – Rank by Traffic
    • PCI 40-50 Rehabilitation
    • PCI 0-40 Reconstruction

• Preventive Maintenance
  – PCI 56-100
  – Structural Distress less than 5%

• Corrective Maintenance
  – Everything Else (≈PCI 45-65)
  – Variety of Tools
  – Cost Effectiveness
  – Agency Driven
Pavement Preservation Overview

- Preventive Maintenance
- Corrective Maintenance
- Rehabilitation
- Reconstruction

Time (Years)

Pavement Condition (Functional or Structural)

Good

Poor
Current Network Condition and Impact of RTC-5 Bonding

Key Strategy: Preserve Investment with Lower Cost Preventive Treatments.

*17 Lane Miles of Reconstruction Annually after 2012
Good Roads are Cheaper!

![Graph showing the percentage of roads in different conditions for Bay Area, All Regional Roads, and RTP.

- Very Poor: Bay Area = 33%, All Regional Roads = 2%, RTP = 0.3%
- Poor: Bay Area = 20%, All Regional Roads = 5%, RTP = 1.2%
- Fair: Bay Area = 21%, All Regional Roads = 21%, RTP = 10.1%
- Good: Bay Area = 72%, All Regional Roads = 88.4%, RTP = 88.4%]
ADA Maintenance Vs. ADA Alterations
## Slurry vs. Microsurface

<table>
<thead>
<tr>
<th>Difference In:</th>
<th>Slurry</th>
<th>Micro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emulsion</td>
<td>Polymer optional</td>
<td>Always polymer modified</td>
</tr>
<tr>
<td></td>
<td>Slow set, quick set</td>
<td>Always cationic quick set</td>
</tr>
<tr>
<td></td>
<td>Anionic, cationic</td>
<td></td>
</tr>
<tr>
<td>Additives/ Break</td>
<td>More dependent on weather</td>
<td>Chemical break</td>
</tr>
<tr>
<td>Mix Stiffness/ Equipment</td>
<td>More workable mix</td>
<td>Stiffer mix</td>
</tr>
<tr>
<td></td>
<td>Drag box</td>
<td>Double auger box</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary strike-off</td>
</tr>
<tr>
<td>Aggregate</td>
<td>Type I, II, III</td>
<td>Type II and III only</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Higher S.E.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(cleaner) More durable</td>
</tr>
<tr>
<td>Application</td>
<td>Fill voids, seal ageing pavement, durable wearing course</td>
<td>Same plus+ high traffic, rut filling, night work, correct minor profile irregularities</td>
</tr>
</tbody>
</table>
Design Considerations

- Slurry and Micro Surfacing Systems are 5 component systems:
  - Aggregate
  - Emulsified Asphalt
  - Water
  - Cement or other mineral fillers (optional)
  - Chemical Additives (as required)
Micro IS a Slurry Seal