Pavement Management:
A Data-Driven Strategy to Improve the Quality of the Street Network in the City of Los Angeles

Presented by:

Keith Mozee,

Assistant Director

Bureau of Street Services

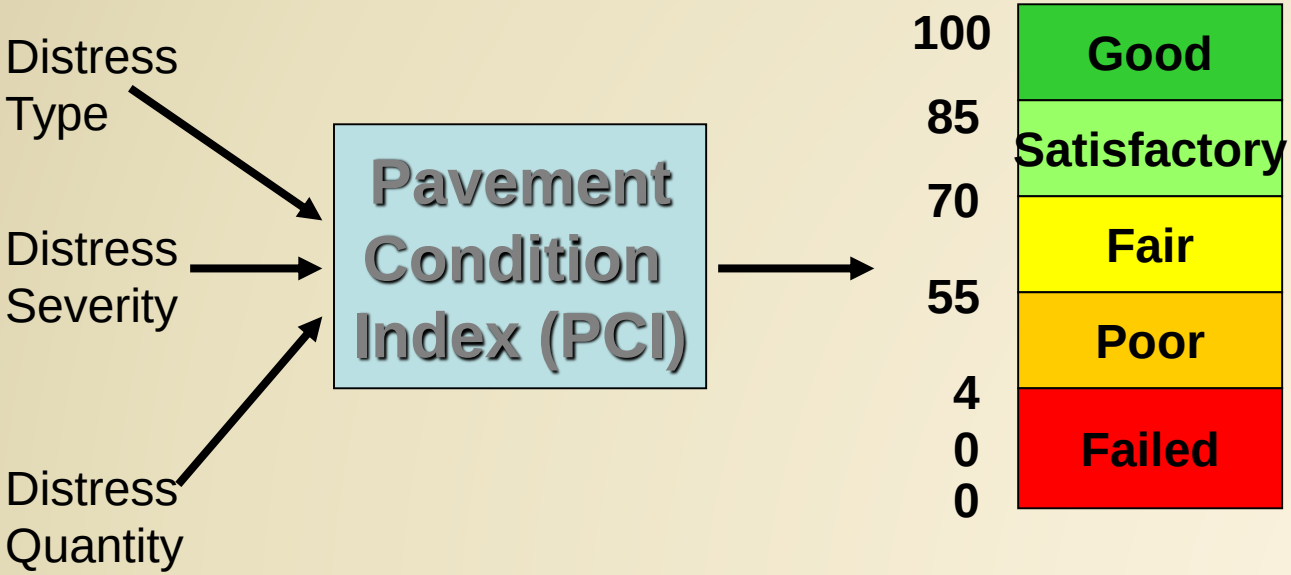
Street Segments are inspected, analyzed and graded: MicroPAVER determines the most cost-effective maintenance or rehabilitation technique.

1. The Bureau of Street Services inspects the condition of every LA street in a three-year cycle, using a sophisticated van with high definition (HD) video cameras and laser measuring devices.

2. HD video images of road surface distress are analyzed, categorized and entered into MicroPAVER database. Streets quality is scored from 0 to 100.

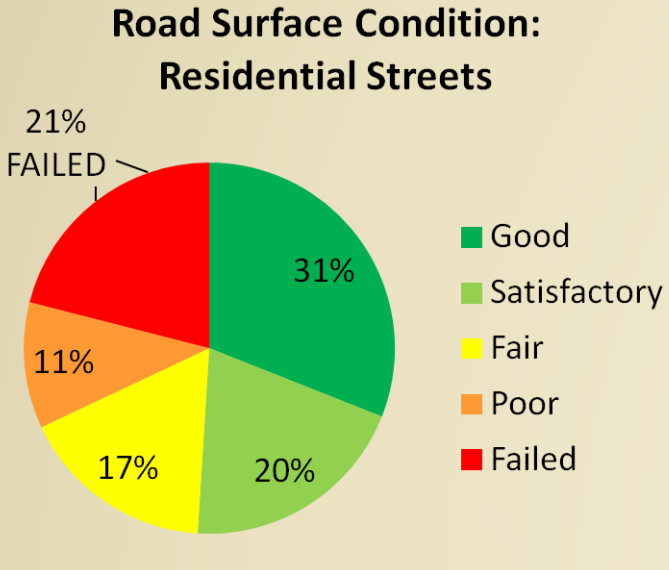
3. Maintenance and rehabilitation activities are prioritized by MicroPAVER based on the most cost-effective strategy to prevent further degradation of the street segment.

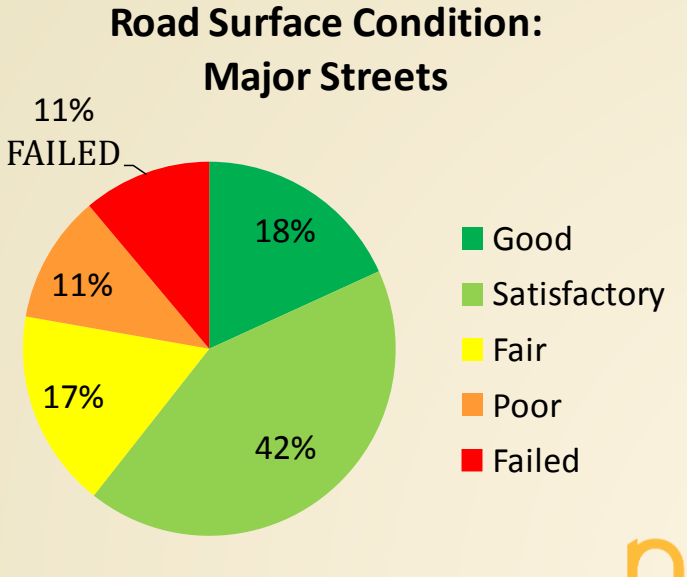
Los Angeles uses the internationally accepted MicroPAVER rating system to assign a numerical grade to the road surface condition of each city street.



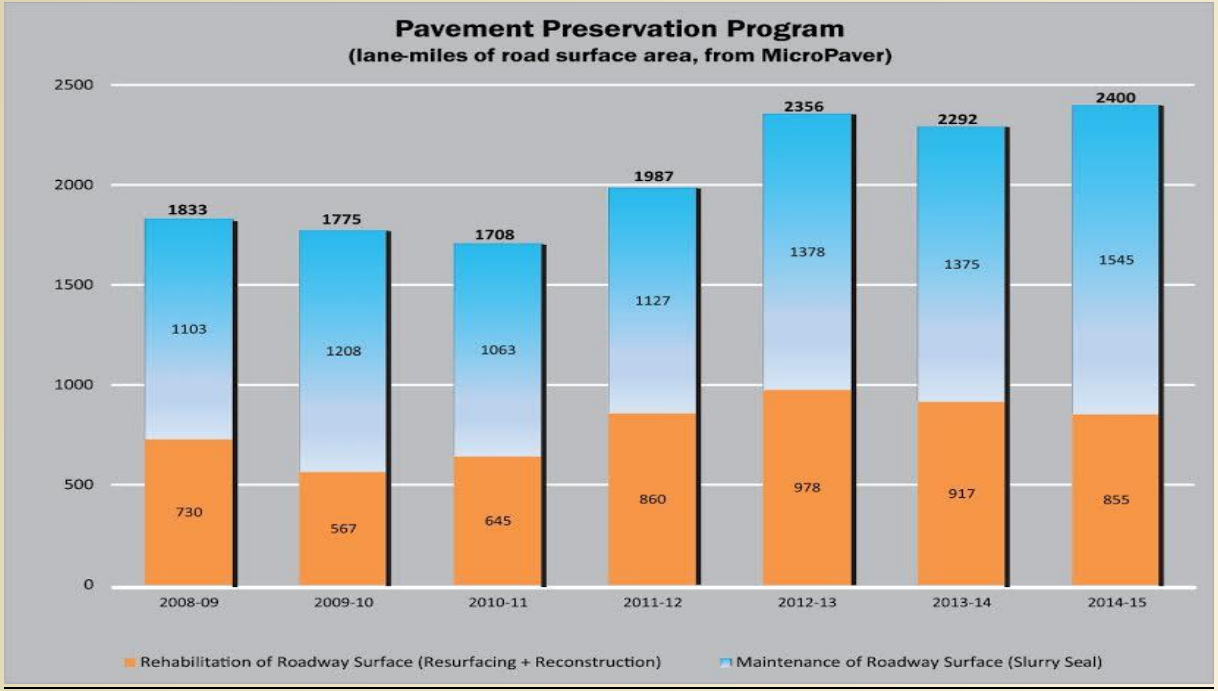
Condition of LA Streets from 2011 Report

From the 1950's to 2000, thousands of lane-miles of LA streets were not resurfaced and were allowed to deteriorate to "failed" condition. Approximately 8,700 lane-miles of streets failed during that period and require costly reconstruction.





Pavement Preservation Lane Miles have grown from 1833 in FY 08-09 to 2400 in FY14-15.

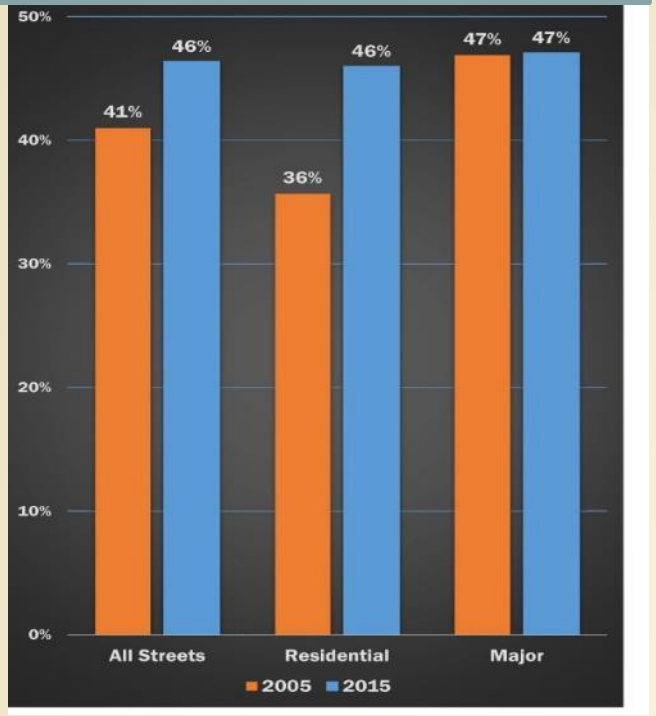


Network Improvement

In 2005, 36 percent of residential streets were in good condition and by the end of 2014 that number increased to 46 percent.

Residential neighborhoods increased from 36 percent to 46 percent. An improvement of 10 percent.

Entire street network increased from 41 percent to 46 percent. An improvement of 5 percent.



.

Pavement Management determines the most cost-effective maintenance technique before a street further deteriorates.

- A maintenance overlay is the application, by an asphalt paving machine, of from 1” to 1½” of asphalt wearing surface to a roadway.
- Resurfacing is the placement by an asphalt paving machine of 2” (±) of asphalt wearing surface over a prepared subbase.
- Reconstruction is the placement by an asphalt paving machine of 2” (±) of asphalt wearing surface area over a prepared subbase.

Coordinating Section compiles the Bureaus Pavement Preservation Program Utilizing MicroPAVER

- Compile the Bureau's Annual Pavement Preservation Program.
- The Annual Resurfacing Program is submitted for clearance to over 200 utility companies 15 months in advance to comply with the Street Damage Restoration Fee Ordinance (SDRF).
- Maintenance and rehabilitation strategies are prioritized by MicroPAVER based data for both resurfacing and slurry seal.

15 to 20 Years

Slurry seal is applied to both residential and arterial streets with good riding and drainage qualities to keep the street perpetually in a good to excellent condition.

- Applied within 3-5 years of asphalt resurfacing.
- A slurry seal replaces eroded fine aggregate particles, seals minor cracks and provides approximately 1/8" to 3/8" wearing surface that lasts approximately 7 years.
- A maximum of three slurry seals could be applied extending the serviceability of the street by 21 years.






Rubberized Slurry Seal is an excellent maintenance practice extending the service life of streets.


- An emulsion mixture of oil, rubber, and fine sand.
- A preservative application (sealant) that:
  - Inhibits oxidation of the oils from the pavement.
  - Deters asphalt cracking.
  - Prevents water from seeping into the sub-base.
  - Extends the streets serviceable life, thereby reducing the need for repaving.

Environmental Benefits

- 162,000 Waste Tires were recycled for 1,545 miles of streets slurry sealed.
- Conserves valuable landfill capacity.
- Reduction in dust and noise pollution.
- Eliminates noxious odors during on-site mixing of materials.






Cold In Place Recycling

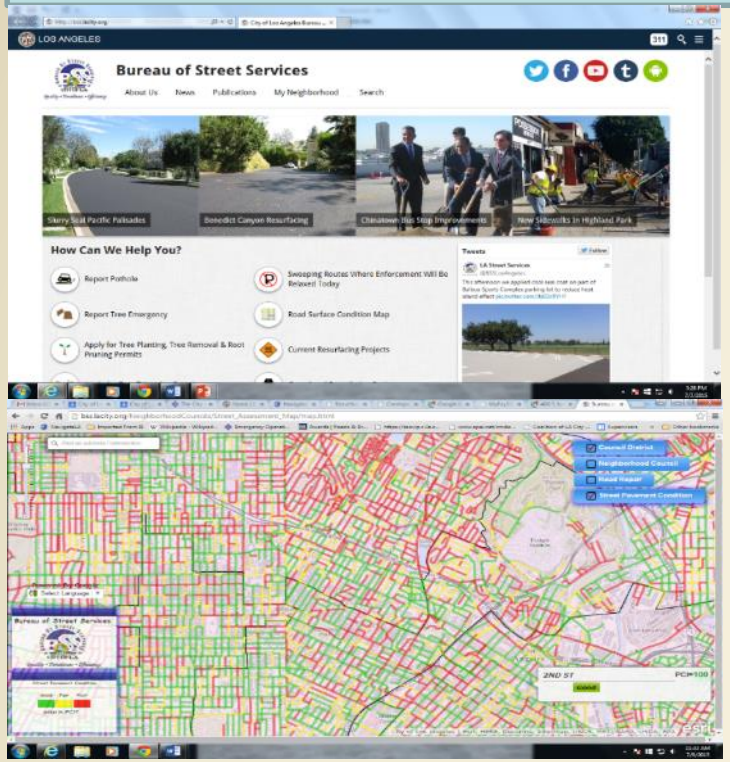
- Cold in Place Recycling is a Green Way to pave streets.
- There is a tremendous amount of energy saved in not having to produce new asphalt mixes, while also not having to send excavated materials to landfills.
- Enabling BSS to reduce its overall cost and footprint on the environment.

5 to 20 Years






Techniques Used To Keep The Public Notified



- Today, the Bureau conducts extensive community outreach to stakeholders through social media.
- A Bureau website, notification mailers, and attendance at Neighborhood Council meetings.
- The City's and Bureau's websites offer the public ongoing performance metrics, information on roadwork in progress, a list of monthly committed scheduled projects, and pavement condition assessments.

Summary

Our Pavement Management system allows BSS to:

- Optimize the street network on a limited budget
- Define the most appropriate type of pavement preservation work
- Ensure that the maintenance work is performed at the right time

CONTACT US- WE'RE HERE TO HELP!

311 or 800-996-CITY

http://lacity.org/myla-311

Twitter @BSSLosAngeles

facebook.com/BSSLosAngeles

Mobile App

- MyLA311 (IOS & Android)