

Transportation Reauthorization Status

Rod Birdsall
President
FP² Inc.

South East Pavement Preservation Partnership

March 16 , 2015

Charleston, SC



Presentation Outline

- What is FP²
- What do we Do
- Challenges
- Lobbying
- Selling the Need
- Performance Measures
- Summary



What is FP²

- What is FP² Inc?
 - An Industry supported trade association
- Purpose of FP² Inc?
 - Promoting the importance of protecting and preserving the huge investment in our nation's pavement infrastructure



FP² Strategies

- Industry Advocacy
- Research
- Communication

Supporters

- Who supports FP² Inc?
 - Associations
 - Contractors
 - Material Suppliers
 - Chemical suppliers
 - Equipment manufactures
 - Consultants



FP² Contributors

Corporate Sponsors



Sponsoring Associations



What do we do?

- **FP² Inc. financially supports**
 - **The National Center for Pavement Preservation at Michigan State University**
- **FP² Inc. works closely with**
 - **Regional Preservation Centers in California and Texas**
 - **Regional Preservation Partnerships in the Northeast, Southeast, Midwest, and Rocky Mountain West; regional Councils**
 - **Federal Highway Administration**



What do we do?

- **FP² Advocates for Pavement Preservation**
 - Monitors legislation and ruling affecting the pavement preservation industry
 - Participates in national associations – PP ETG, TRB, AASHTO
- **FP² is a full partner in NCAT PP research**
- **FP² Inc. publishes the Pavement Preservation Journal**
- **Presents Annual James B. Sorenson Award**

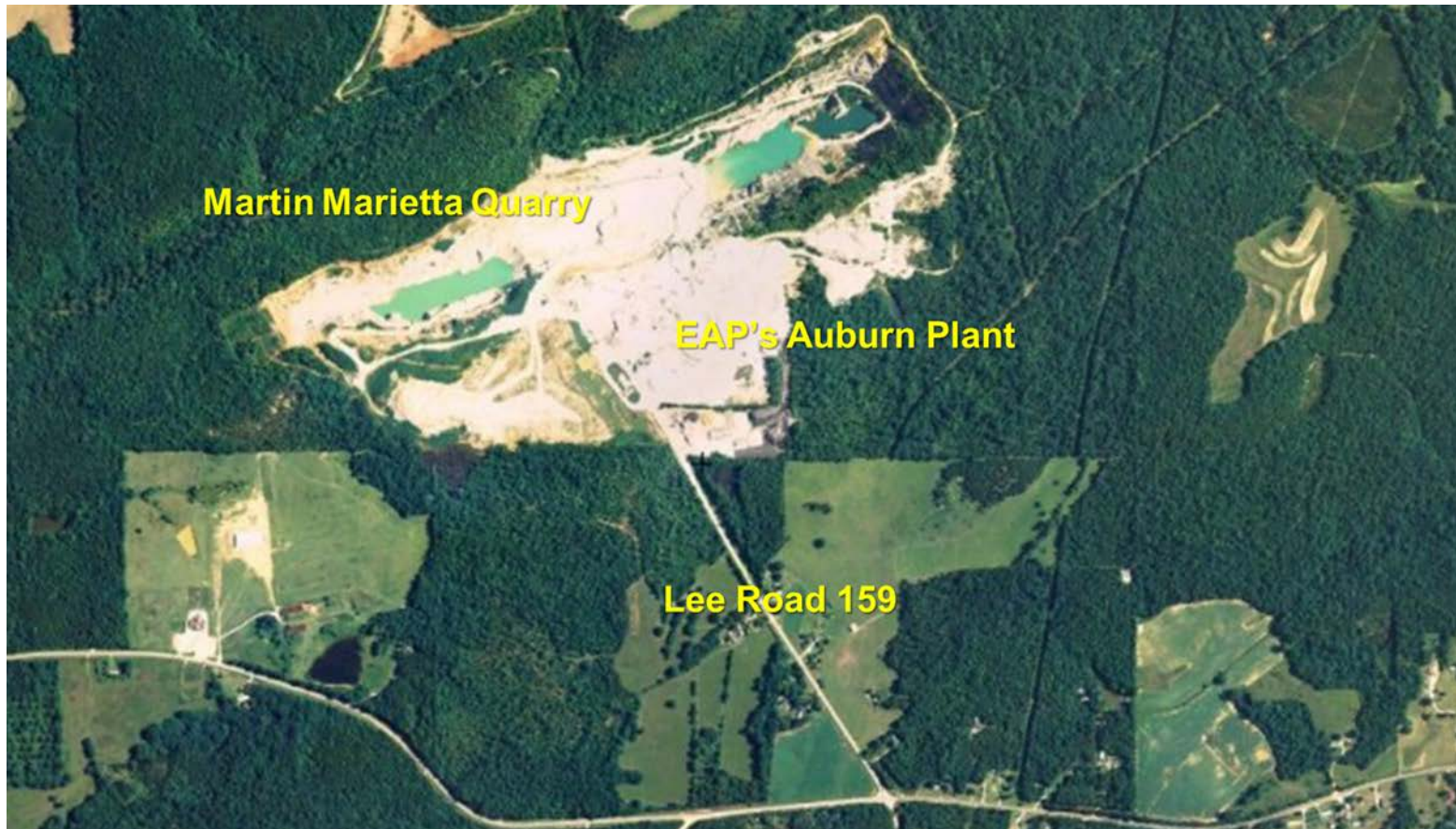


NCAT Pavement Test Track at Auburn University



2012 Pavement Preservation Study

PG Sections on Lee Road 159



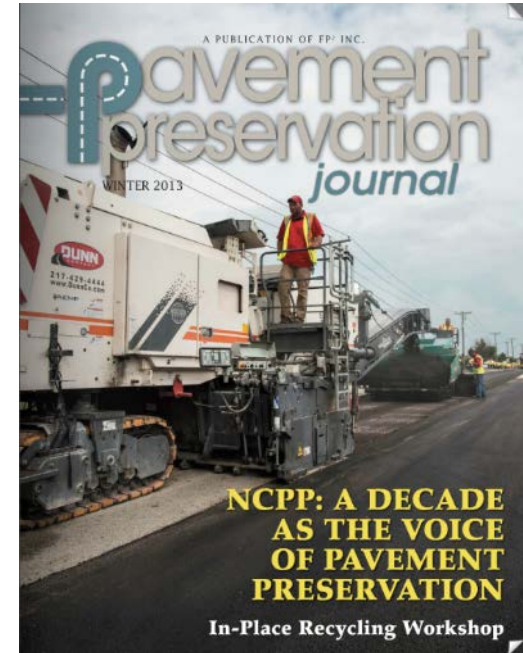
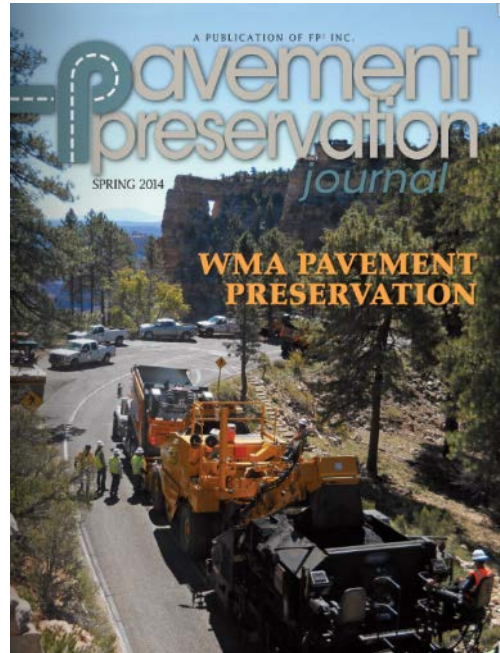
NCAT Preservation Group Study

- Monitoring continues under the current contract on Lee Road 159
- “Trigger Values” for preservation treatments on the track have been set with the funding partners and treatments will be applied when they are reached
- 2012 Track meeting was held March 3-5, 2015 at Auburn, AL

NCAT Preservation Group Study

- NCAT soliciting more partners for the 2015 Preservation Group experiment
- Has located a four lane US highway near Auburn for 2015 PP study
- NCAT partnering with MN Road for the 2015/2016 experiment to include warm and cold climates. FP2 will be a full partner.
- Industry can be a part by contributing to FP2

FP² Magazine



Challenges

- Keeping Good Roads Good
- Lack of Funding
- Getting Message to Officials
- Getting Message to Public
- How do we Sell Pavement Preservation????

U.S. Highway System is Steadily Deteriorating

- In 2009, ASCE graded nation's roads a D-
- Our roads now at critical period in their life span
- Average "historic design life" of US roads is approx. 20 years
- Proactive maintenance can extend road life spans



Crumbling Roads Weaken U.S. Economic Strength



- Our transportation infrastructure supports the economic strength and security of our country.
- Highways and roads move people, goods and services 24 hours a day.
- In 1997, 75 % of our nation's products were shipped by truck

Preservation is Proactive

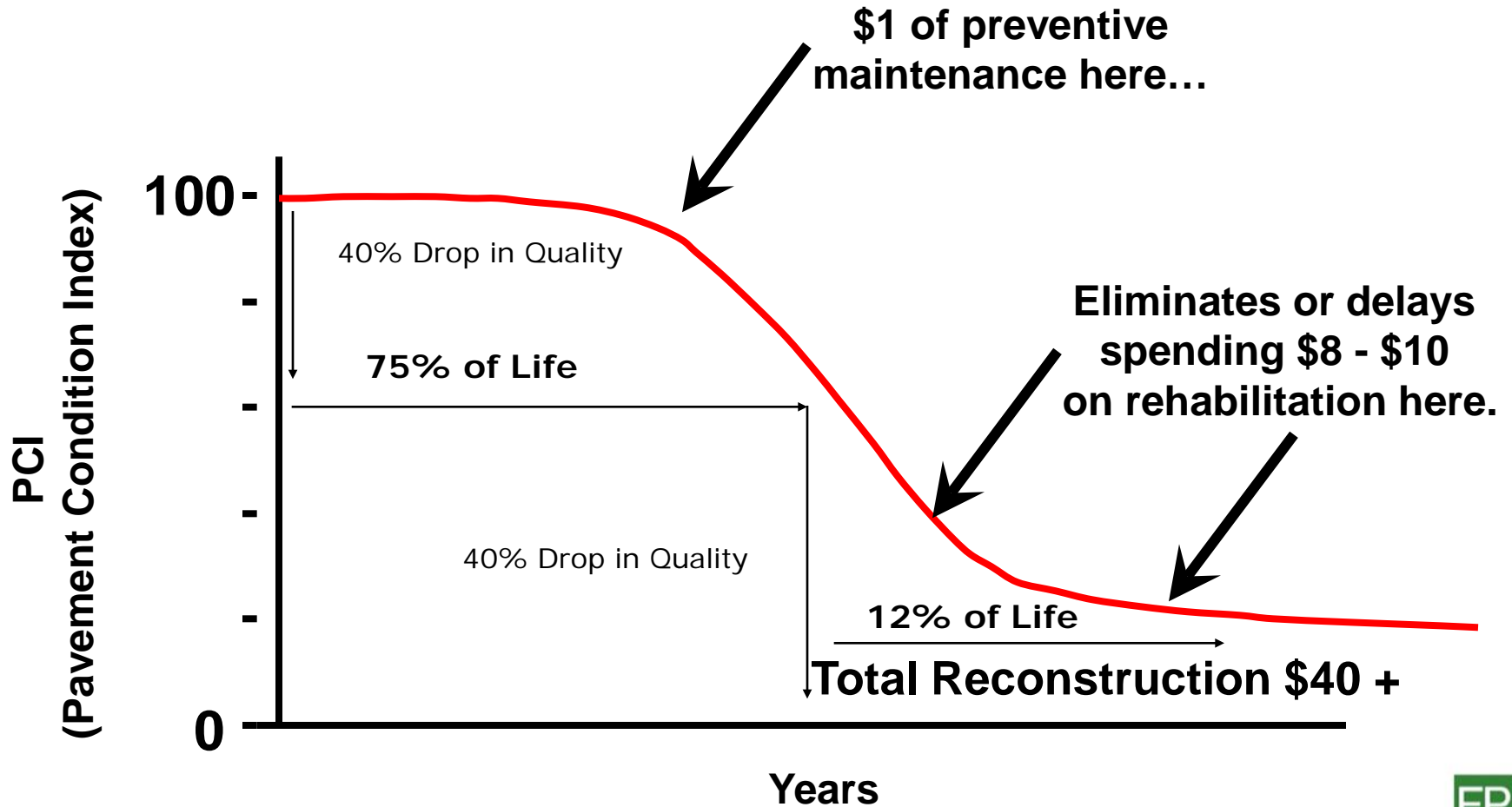
- Preservation is proactive, not reactive.
- We're not talking pothole filling, but pothole prevention.
- As roads worsen, reconstruction becomes the only option, but the cost is unaffordable



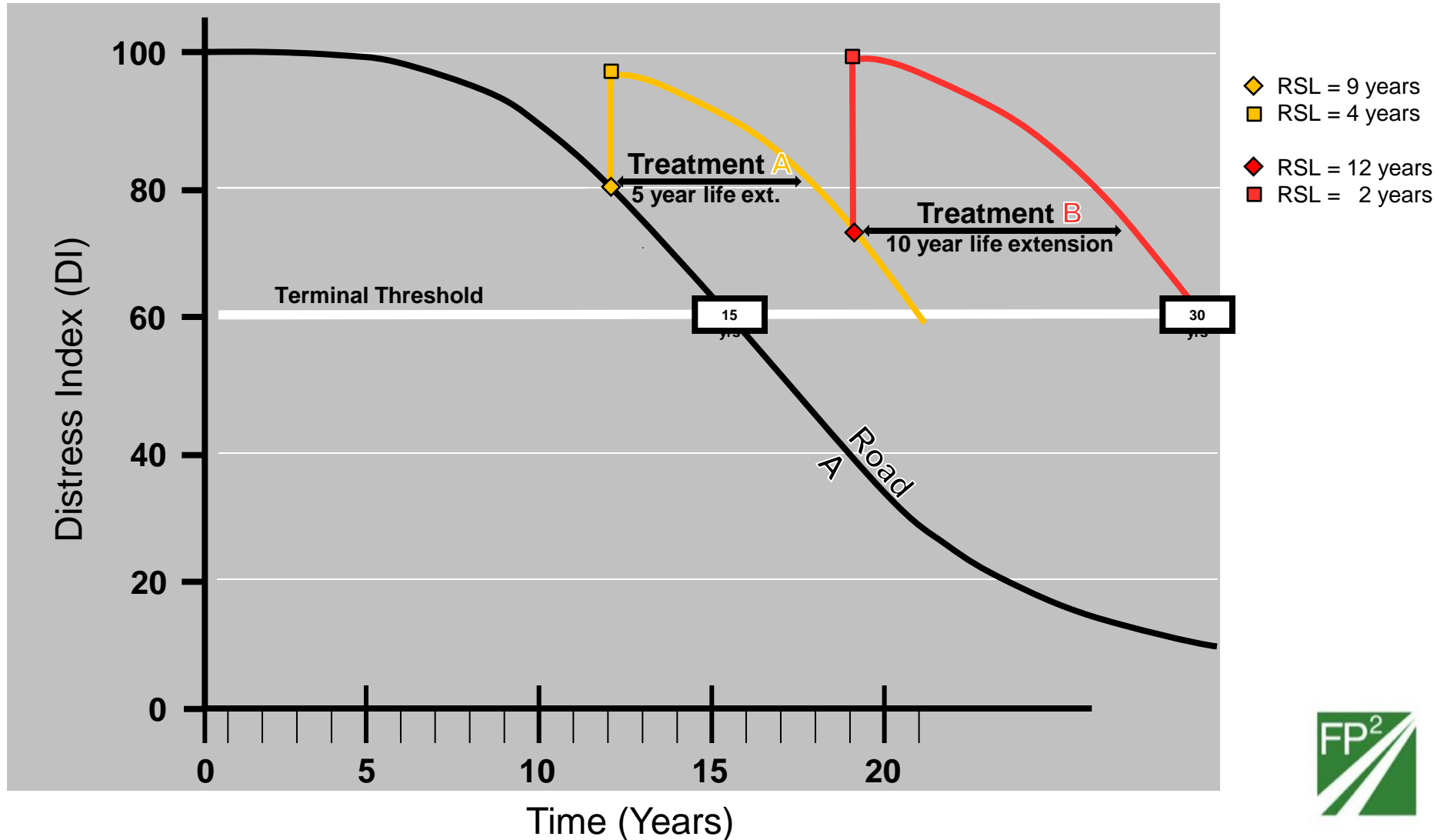
Why Pavement Preservation?

1. Keep 'GOOD' pavements in "Good" Condition.
2. Corrects surface deficiencies.
3. Preserves the pavement system.
4. Retards future deterioration.
5. Maintains or improves the functional condition of the pavement system.
6. Postpone expensive costly rehabilitation
7. \$\$\$ Saves Budget Dollars.

Life of Pavement



Remaining Service Life



Pavement Preservation Network Evaluation

- Must preserve one lane-mile-year per lane-mile of road in the system
- Pavement preservation is not a “worst first” approach
- Must educate, inform, and sell the program to all stakeholders... Politicians, Agencies and Highway Users

Lack of Funding

- Last Federal Gas tax – 1993
- Of the 18.4 cents about 2.6 goes to Mass Transit
- CPI up 3.36% since 1993
- Meaning \$1 today buys less than \$0.30 worth of 1993 products

Cost of Driving

- If you drive 20,000 miles per year and your vehicle gets 20 miles per gallon, you purchase 1,000 gallons of fuel per year
- $1,000 \times \$0.184 / \text{gal} = \184.00 or less than 50 cents per day to drive on Interstate and US national highway routes
- Local roads face a similar shortfall
- Roads are one of the Cheapest things in our Society!!

Cost of a Gallon...



1 Gallon
\$3.89*

(\$3.89 / gal)



6ct, 16.9oz
\$3.99*

(\$5.04 / gal)



6ct, 16.9oz
\$2.69*

(\$3.40 / gal)



59oz
\$2.99*

(\$6.49 / gal)



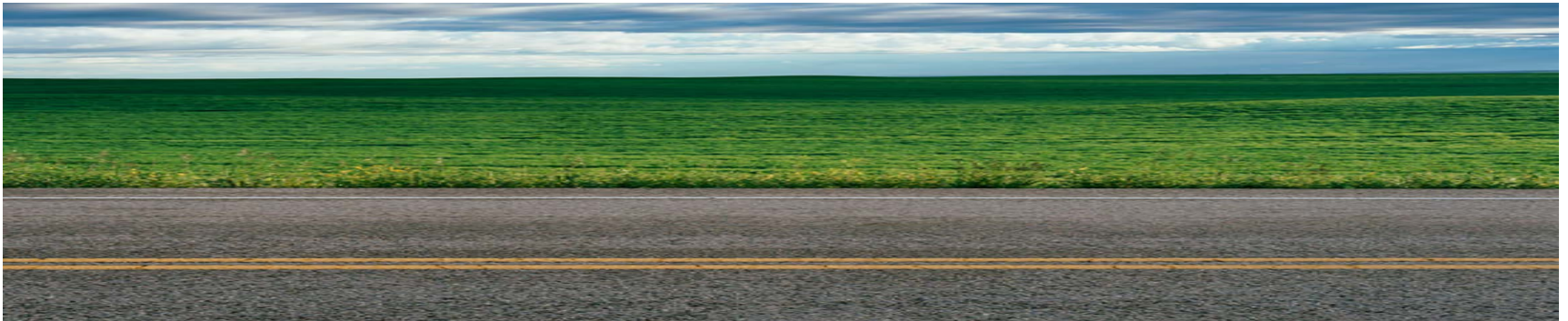
1 Gallon
\$2.98**

(\$2.98 / gal)

****Priced at Hannaford's in Concord, NH on 11/12/14***

*****NH State Average on 11/12/14***

Insufficient Investment



- Budget shortages, constituent pressures and public misperception tempt road agencies to defer maintenance and adopt “worst first” policies
- More investment in preservation gives roads longer life spans, reducing reconstruction costs

All Roads Need Preservation



- Many U.S. roads have not had preservation treatments applied and are seriously damaged.
- Few agencies have adequate preventive maintenance programs.
- Even new roads require surface treatments to prevent structural damage.

Preservation Cuts Costs

- Preservation treatments have much lower costs compared with rehabilitation and reconstruction.
- When road damage causes serious traffic problems, it's usually too late.
- Road deterioration is almost imperceptible to the average person.
- Pavement preservation extends a road's lifespan and helps stretch budgets.
- Pavement preservation use less natural resources and are environmentally sustainable

Getting Message to Officials

- Encourage fiscal responsibility among political leaders and officials to stretch tax dollars by allocating more money to pavement preservation
- Promote clear definitions, economic analysis and documentation of preservation successes
- Change attitudes from the top down in road agencies
- Streamline agency business plans and update pavement management systems

Equivalent Annual Costs

NHDOT - Pavement Management Section 2013 Equivalent Annual Costs

Treatment Alternative	2013 Approx. Costs		Estimated Service Life (years)	Equivalent Annual Cost (\$/SY/year)
	(\$/lane-mile)	(\$/SY)		
4.75mm HMA	\$ 20,169	\$ 2.86	6	\$ 0.48
Micro (32 lbs/SY)	\$ 21,880	\$ 3.11	6	\$ 0.52
Double Chip Seal	\$ 28,301	\$ 4.02	7	\$ 0.57
1" HBP Overlay	\$ 32,412	\$ 4.60	8	\$ 0.58
Bonded Wearing Course	\$ 41,818	\$ 5.94	10	\$ 0.59
Chip Seal	\$ 21,120	\$ 3.00	5	\$ 0.60
3/4" Paver Shim	\$ 25,786	\$ 3.66	6	\$ 0.61
AR Bonded Wearing Course	\$ 52,800	\$ 7.50	12	\$ 0.63
15% AR Chip Seal	\$ 37,932	\$ 5.39	8	\$ 0.67
1-1/2" HBP Overlay	\$ 48,618	\$ 6.91	10	\$ 0.69
1-1/2" ARGG Overlay	\$ 67,312	\$ 9.56	13	\$ 0.74
1-1/2" HBP Inlay	\$ 59,939	\$ 8.51	10	\$ 0.85
FDR with 4" HBP	\$ 140,997	\$ 20.03	15	\$ 1.34
2" TW Inlay with 1-1/2" FW Overlay	\$ 124,763	\$ 17.72	13	\$ 1.36
4" CIP with 3-1/2" HBP Overlay	\$ 205,187	\$ 29.15	15	\$ 1.94
3" CIP with 3-1/2" HBP Overlay	\$ 186,924	\$ 26.55	13	\$ 2.04

Notes:

1. Costs per lane mile based on 12-foot lane width.
2. Costs shown here include a 20% multiplier to account for fixed costs.
3. 3' CIP with 3-1/2" HBP overlay includes 2" of conventional binder and 1-1/2" ARGG wearing course
4. 4' CIP with 3-1/2" HBP overlay includes 2" of conventional binder and 1-1/2" ARGG wearing course

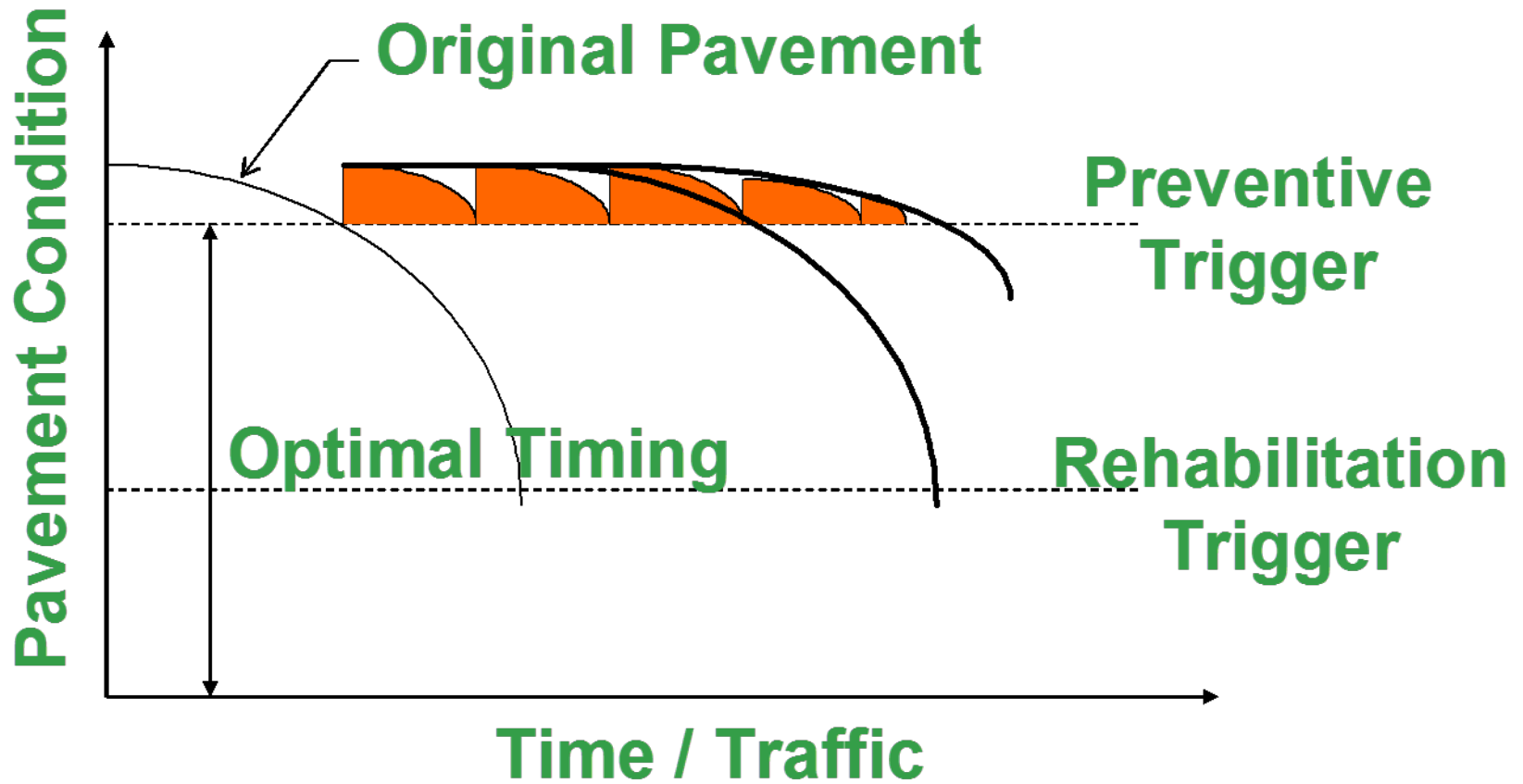
Typical Life Extensions

Treatment	Good Condition (PCI=80)	Fair Condition (PCI=60)	Poor Condition (PCI=40)
Crack Fill or Seal	1 - 3	0 - 2	0
Chip Seal	4 - 10	3 - 6	0 - 3
AR Chip Seal	6 - 12	3 - 7	2 - 4
Thin HMA	4 - 10	3 - 7	2 - 4
Bonded Wearing	6 - 12	3 - 7	2 - 4
AR HMA Mixes	10 - 15	5 - 12	3 - 6

Apply treatments at the right time & get the best return on your investment or Equivalent Annual Cost “EAC”



Strategies versus Treatments



Getting Message to the Public



The public needs to understand:

- Our transportation system is a Social issue
- Better roads mean more time at home, doing the things we want to do and less in the auto
- Less congestion and a well maintained infrastructure greatly reduces stress and anxiety on the traveling public

Getting Message to the Public



The public needs to understand:

- The economic impact of roads in bad condition
- The high cost of deficient preservation in terms of vehicle operation and rehabilitating and rebuilding roads
- The detrimental impact of unnecessary reconstruction on the environment

Public Policy Changes Need Our Support

- Agencies implementing pavement preservation should be rewarded.
- Policies need to encourage sound road management initiatives that will:
 - Save taxpayers money;
 - Improve the economy; and,
 - Reduce environmental impact



How do we Sell Pavement Preservation?

- Make PP and Highway Funding a Social Issue
- Use Available Resources
- Your experiences, experiences of other agencies
- Data from NCPP, NCAT, FP2
- Develop a Pavement Management System
- Establish the benefits of using Pavement Preservation in your network
- Work with your officials to show Economic Benefits
- Present programs at local functions and groups



Selling Benefits of Preservation

- Stretching the limited \$\$\$
- Sustainability
 - Use of RAP, RAS, Tire Rubber
- Environmentally friendly
 - WMA
- Cost effective

Advocacy Effort

- FP2 has a contract with Williams and Jenson to represent the Pavement Preservation (PP) industry
- FP2 was instrumental in getting PP language in MAP 21
- Have had many meetings with transportation committees as well as key Congressmen and staff



Advocacy Effort

- Continue to work with FHWA to define definitions of PP techniques under the Justice Departments memo regarding ADA definition versus the definition adopted by the PP ETG and FHWA

Advocacy Effort

- MAP 21 funding currently ends May 31,2015
- House and Senate are currently working on a long term 6 year bill
- Everyone agrees on need, issue is funding
- Chairmen Inhofe and Shuster want to get it done

Potential Funding Concepts

- Increase gas tax (User Fee)
- Increase vehicle registration fees
- Have a mileage based user fee
- Have budget trade offs
- Fund from general tax sources
- Repatriation
- Currently, to our knowledge, all are in play

FHWA MAP 21 Performance Measures

- Required by MAP 21
- Published January 5, 2015
- Comments to FHWA by May 5, 2015
- FP2 working on submitting comments and recommended changes
- Drafted Performance Measures are Ride (IRI), Rutting and Cracking
- Encourage everyone to respond



Summary

- FP², NCPP & SEPPP are there to support Pavement Preservation
- FP² long term strategies are Advocacy, Research and Communication
- FP² will be a full funding partner to the NCAT/MNRoad research cycle
- Our advocacy efforts will continue through the passage of the next long term highway bill and beyond



Summary

- Funding is the key hurdle to a new bill and may take a different user fee approach
- We must advocate the need for a new bill and make it a social issue to get support from the driving public (Road users).

Summary

- The Draft of MAP 21 Performance Measures are published and are open for comments. Please be part of the review
- Maintaining our nation's highway network is essential for job creation and economic growth

Summary

- FP2 is here to serve the industry
- Choosing the *right* treatment and placing it at the *right* time on the *right* road is the mantra of pavement preservation
- Keeping good roads good is the *right* thing to do and good public policy
- Please support FP2 in our efforts!!



FP² Contributors

Corporate Sponsors



Sponsoring Associations



Contact Information



FOR PAVEMENT PRESERVATION

(512) 970-8865

(866) 862-4587

jimmoulthrop@gmail.com

James S. Moulthrop, P.E. (PA, AZ)

Executive Director

FP², Inc.

8100 West Court

Austin, TX 78759

