Maintaining or Managing Pavement Assets

2014 Transportation Short Course
College Station, TX
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MAP-21 Excerpts

• Risk-based Asset Management Plan
• Targets to be set and progress reported periodically
• Minimum Standards for Interstate Pavements
What is Transportation Asset Management?

Asset management is a strategic and systematic process of operating, maintaining, and improving physical assets, with a focus on engineering and economic analysis based upon quality information, to identify a structured sequence of maintenance, preservation, repair, rehabilitation, and replacement actions that will achieve and sustain a desired state of good repair over the lifecycle of the assets at minimum practicable cost. (23 U.S.C. 101(a)(2), MAP-21 § 1103)
Benefits of Pavement Preservation

- Extend Pavement Life
- Reduce Pavement Expenditures
- Increase Customer Satisfaction
- Provide Safer Operating Surfaces and Conditions
- Improve Network Performance
Role of Pavement Management in an Agency

Transportation Asset Management

Pavement Management

Planning & Programming

Maintenance & Operations

Design & Construction

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Timing

Pavement Preservation window

Preventive Maintenance

Reconstruction

Rehabilitation

Maintenance

Good

Poor
Pavement condition vs. age – current practice

Graph showing the relationship between pavement condition and age over a period of approximately 60 years. The condition decreases with age, with periodic spikes indicating maintenance activities.
Pavement condition vs. age – preservation approach
Kansas DOT

% of System in Level

- **Good**
- **Deteriorated**

Time, years

- 91.1%
- 0.90%
Good Pavements Cost Less $$$

Decreasing costs!

1982-1992

1992-2002
This is too late!