

AASHTO SOC

Performance Related Specification for Asphalt and Concrete Pavements

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Benefits of PRS

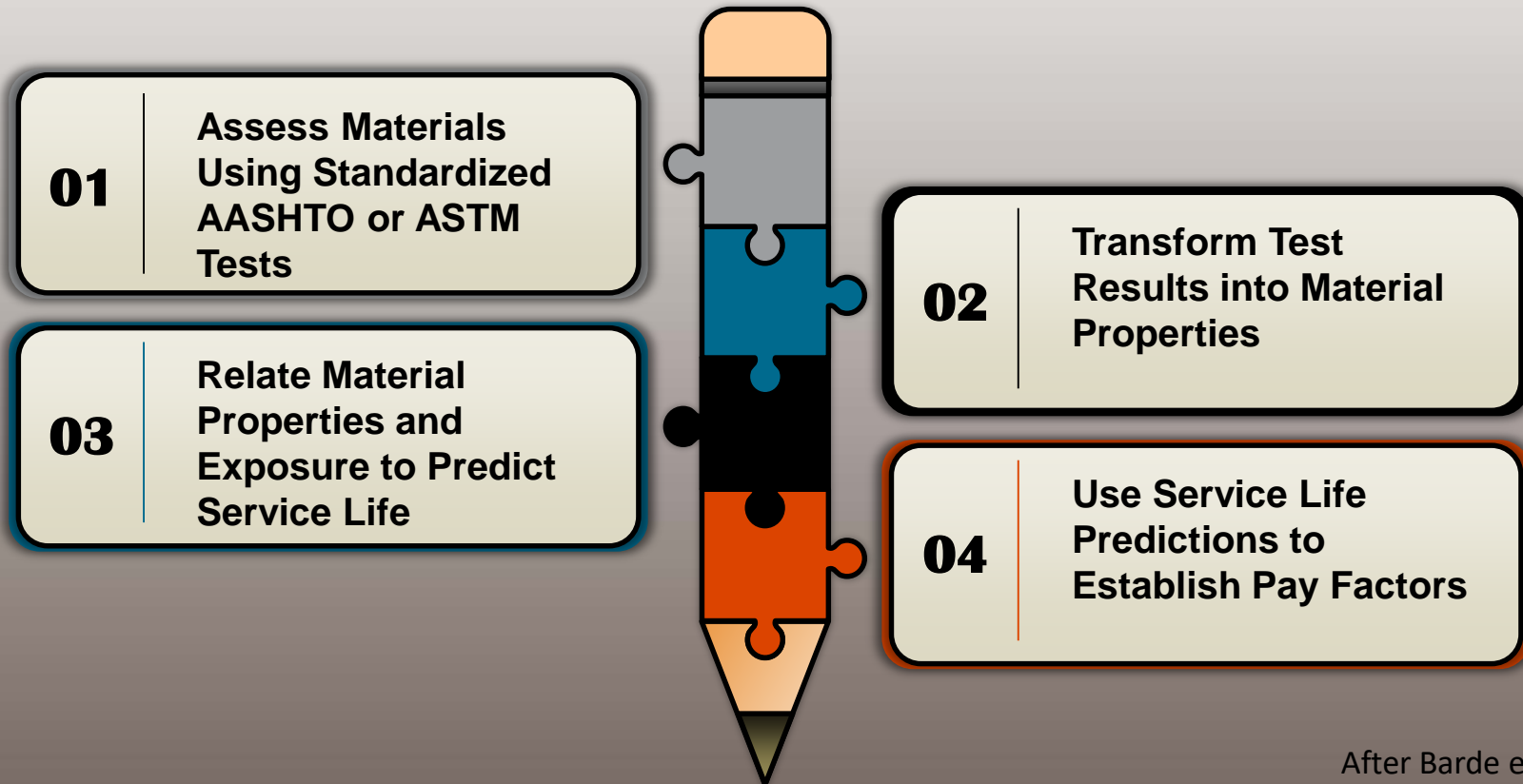
- Long term pavement performance predicted from fundamental engineering properties for Asphalt and Empirical/Fundamental properties for Concrete
- Incentives and disincentives justified through reduction or increase in pavement life
- Allow contractors to be more innovative and more competitive



Performance Approach



Oregon State University
College of Engineering



After Barde et al. 2007



Tools, Guidelines, and Sample Specifications

- Define the PRS approach and the system of tools that agencies can use
 - A framework of the PRS approach
 - Describe a system of tests, quality characteristics, models or transfer functions for predicting performance
- Guidelines
 - Steps that an agency needs to take to develop and implement PRS
 - Lot/sublot layouts, type and number of tests, inspection and testing procedures and protocols, decision-making details that impact pay, etc.
- Sample specifications
 - AASHTO format



Objectives of **Shadow** PRS

- How would project have been accepted, (and contractor paid), if PRS were used
- Understand ways that PRS may impact normal testing and acceptance operations



Shadow Projects

- Working with State Highway Agencies for shadow projects
 - Conduct a coordination meeting
 - Collect and analyze pre-construction data
 - Training of highway agency staff and develop the PRS
 - Address contractor questions and concerns
 - Training for field implementation
 - Implement the sampling and testing plans on the project site.
 - Perform an evaluation of the PRS practicality and effectiveness
 - Prepare a summary report
- Use results for validation and refinements to procedure and guidelines



Asphalt Shadow PRS Plans

- Missouri DOT – 3 projects underway
- Maine DOT – July/August 2017
- Ontario MOT – Fall 2017
- Maryland SHA – Ongoing
- North Carolina DOT – SHRP2 R07
- FHWA Western Federal Lands – 1 of 2 Completed

- FHWA Mobile Asphalt Trailer support



Concrete Shadow PRS Status

- Illinois Tollway – Implemented beyond shadow
- Colorado DOT – Sept 2017
- Texas DOT – Fall/Winter 2017-18
- FHWA Mobile Concrete Trailer support



What Will I Get Out of This?

- FHWA/ARA/NCSU Will provide shadow guidelines and Technical support.
- Performance Testing Procedures Training
- Software and Analysis Training
 - Understanding of Performance Related Specification and how they measure Performance.
- **SEEKING SHADOW PROJECTS**



Thank you!

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