Performance Specifications for Rapid Renewal

SHRP2 R07 Showcase – Salt Lake City, UT

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Wait....Stephen King didn't make this place up
Population = 1.33 million

Over 35,000 sq. mi.

Highest Point, 1 mile at Mt. Katahdin

1820 became the 23rd state
- **State berry**: Wild blueberry
- **State bird**: Black-capped chickadee
- **State dessert**: Blueberry pie
  - made with wild Maine blueberries
- **State fish**: Land-locked salmon
- **State gemstone**: Tourmaline
- **State insect**: European honey bee
- **State mammal**: Moose
- **State soft drink**: Moxie
- **State soil**: Chesuncook soil series
- **State treat**: Whoopie pie
- **State tree**: Eastern White Pine
MaineDOT Three-Year Program

- $2 Billion, 1,600 Work Items
- $244 M – 212 Miles for Highway Con/Rehab
- $213 M – 718 Miles of Pavement Preservation
- $83 M – 1,800 Miles Light Capital Paving
- Maine – 23,000 Centerline Miles
- MaineDOT – 9,000 Miles – IT’S ALL HMA!
Why Performance Specifications?

• Current QA specifications don’t always result in performance
• Desire to promote innovation
• Move closer to user needs
Project Selection Considerations

Scope?
- Complexity
- Opportunity to innovate
- Existing conditions

Can performance be defined?
- Desired outcomes
- User needs

Can performance criteria be measured?
- Timely
- Cost-effective

Delivery Method?
- Design
- Material selection

Performance Specs
Can be applied to most projects – use the appropriate "Tier"
Applies to More than New Pavement Construction

• Bridges & Structures
• Recycling
• Pavement Preservation
Performance-Based Mix Designs

- **HMA**
  - Move beyond volumetrics
  - Need to define performance criteria

- **PCC**
  - Performance-Engineered Mixes

- **Material Selection**
  - Specify results, not ingredients
  - NJ model
QA Core Elements Apply

Core Elements of a Quality Assurance Program

Contractor Quality Control (QC)

Independent Assurance (IA)

Dispute Resolution

Laboratory Accreditation and Qualification

Personnel Qualification/Certification

Agency Acceptance
Quality Control

• Often overlooked – everyone focuses on Acceptance
• Performance Specifications depend on effective Quality Control Plans, systems
  – Often seen as a paper exercise
• Do we need to rethink QC requirements?
  – Are we hindering QC by using data for Acceptance?
• Which technologies apply to QC vs. Acceptance?
What Might our Specifications Look Like?

• My goal: A pavement specification < 5 pages
• Much of today’s spec language – move to QC Plan
Questions?
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