



Performance Specifications for Rapid Renewal

SHRP2 R07 Showcase – Salt Lake City, UT

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Materials Testing & Exploration

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Maine

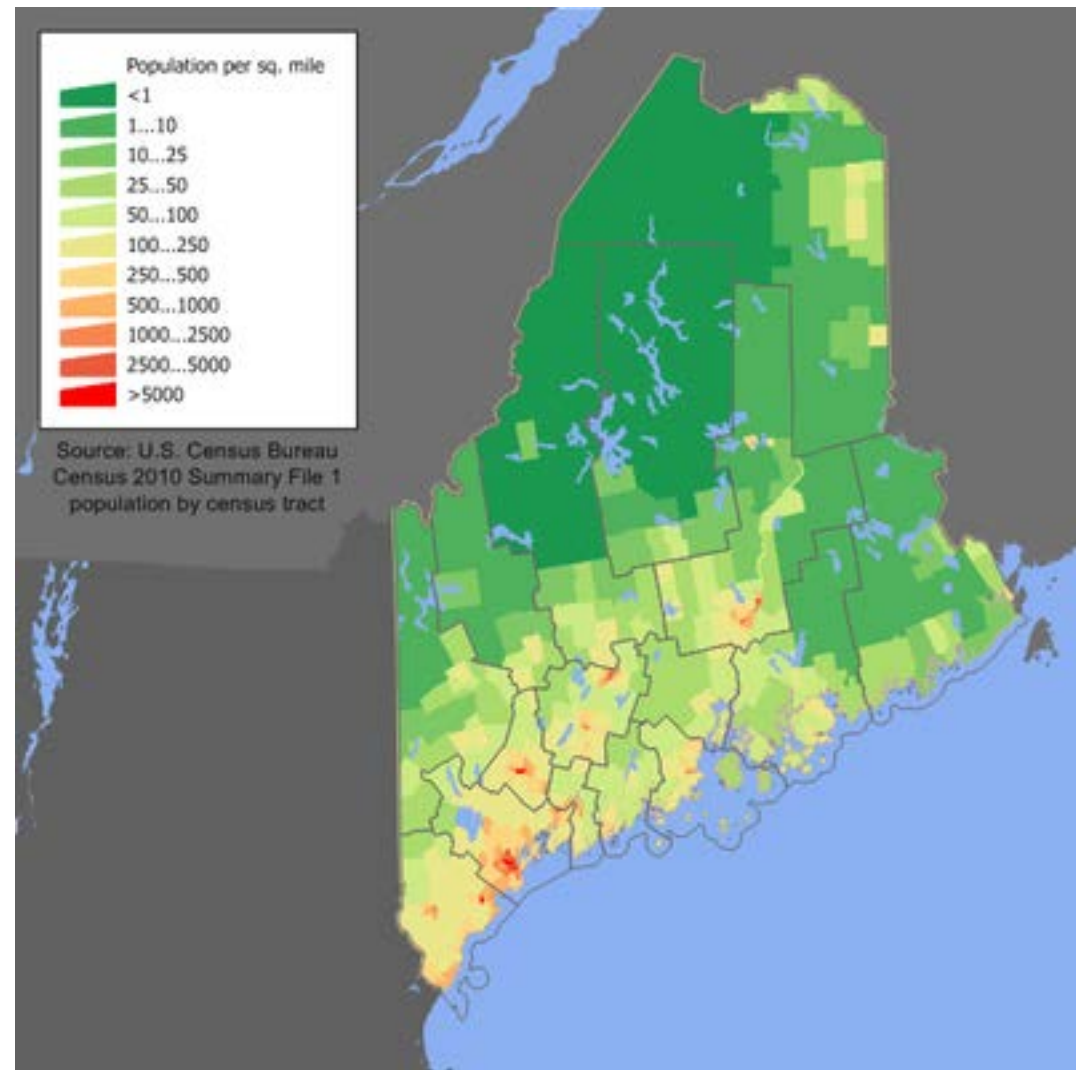
Wait....Stephen King didn't make this place up

Population = 1.33 million

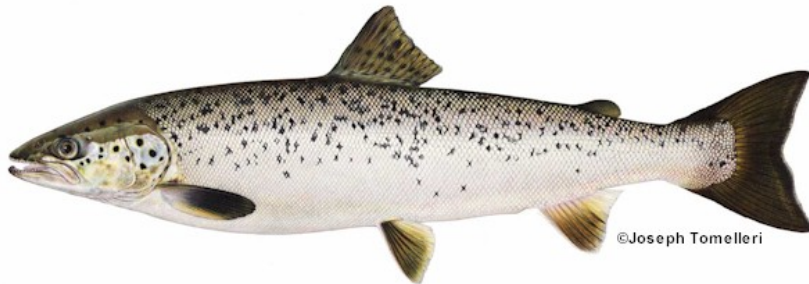
Over 35,000 sq. mi.

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



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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

Performance Specs

Can performance criteria be measured?

- Timely
- Cost-effective

Delivery Method?

- Design
- Material selection

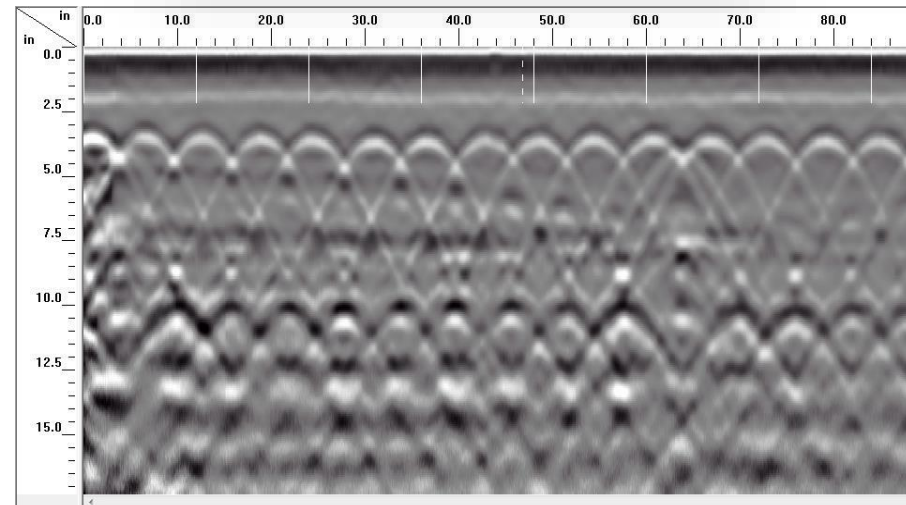
Project Selection Considerations

Can be applied to most projects – use the appropriate "Tier"



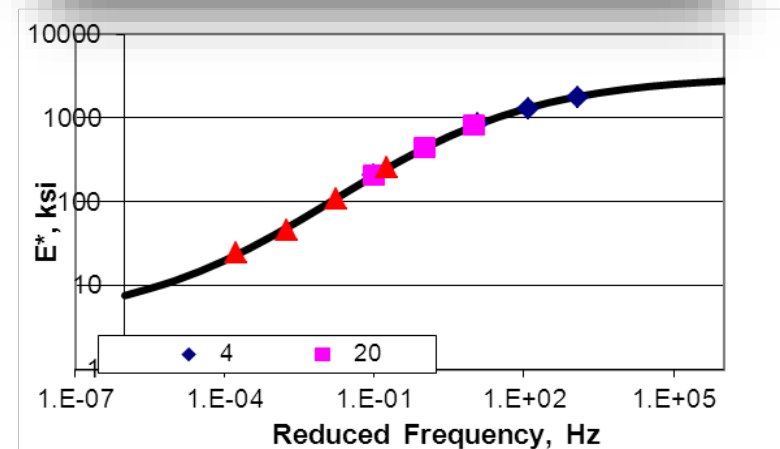
Applies to More than New Pavement Construction

- Bridges & Structures
- Recycling
- Pavement Preservation



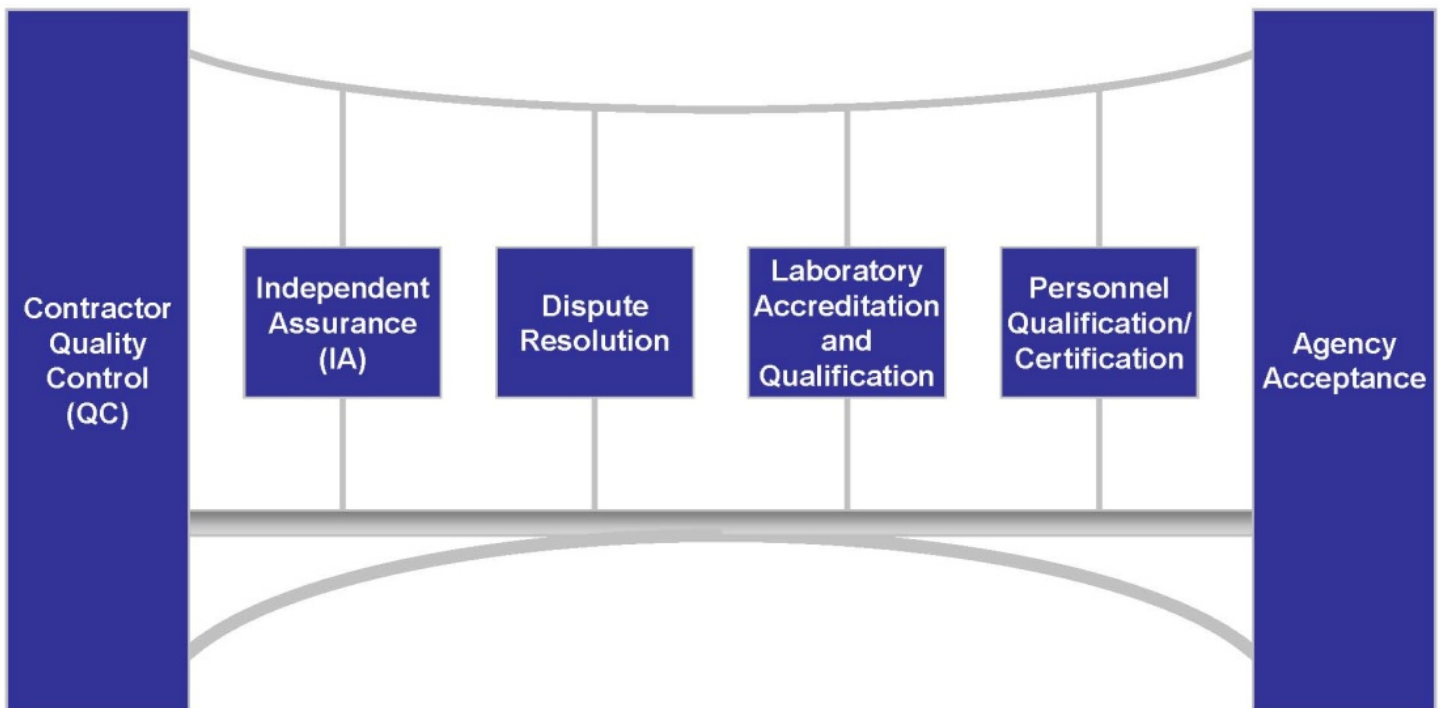
Performance-Based Mix Designs

- **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



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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MaineDOT

