FHWA Emulsion Task Force (ETF) Chip Seal update

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Presentation Outline

- Products developed
- Subcommittee membership
- Current Status
- Remaining Chip Seal work
- What is next for the Spray Group?
Products Developed

- Standard practice for chip seal materials, AASHTO format
- Standard practice for chip seal design, AASHTO format
- Standard specification for construction of chip seals, AASHTO format
- Chip seal Best Practices
Design Group–Spray Group Members

- Co chair–Jim Moulthrop
- Members
  - Andrew Bickford
  - Rod Birdsall
  - Joe Brandenburg
  - Kevin Carlson
  - Andy Clayton
  - Larry Galehouse

- Members, cont.
  - Mark Ishee
  - Ian Jack
  - Richard Kim
  - Gayle King
  - Todd Shields
  - Scott Shuler
  - Troy Tindall
  - Mike Voth
  - Tom Wood
Process Used

- The Need—improve current practice and specification in AASHTO format for nationwide use
- Go by—specification developed by MNDOT for cold climate applications
- Development—draft prepared and circulated for review by the ETF mix group
- Review—comments were received, debated and incorporated
- Final draft standards and specification sent to the ETF members and then to AASHTO SCOM
Elements of the Materials Spec

- Scope
- Reference Documents
- Terminology
- Significance and Use
- Emulsified Asphalt Requirements
- Aggregate Requirements
Elements of the Design Practice

- Scope
- Referenced Documents
- Terminology
- Significance and Use
- Chip Seal Design Requirements
  - Emulsion
  - Aggregate
Elements of the Construction Guide

- Description
- Materials
- Equipment
- Construction
- Quality Control
- Agency Acceptance
- Method of Measurement
- Basis of Payment
Equipment Used for Chip Seals

- Pressure Distributor
- Aggregate Spreader
- Pneumatic Tire Rollers
- Brooms
Construction Process

- Construction
  - Weather Limitations
  - Road Surface Preparation
  - Application of Emulsion
  - Application of Cover Aggregate
  - Rolling Operations
  - Sweeping
  - Protection of Traffic
  - Fog Seal
Quality Control and Acceptance

- Quality Control
  - Aggregate
    - Stockpile
    - Construction
  - Emulsified Asphalt
- Project Documentation

- Acceptance
  - Aggregate
  - Emulsified Asphalt
  - Method of Measurement
  - Basis of Payment
    - Gallons/sq.yd.
    - Pounds/sq.yd.
Chip Seal Best Practices

- Supports the developed specifications and practice
- Identifies gaps in current knowledge and research needs
- Stand alone document for chip seals
What is Next for Chip Seals

- Incorporate review comments from AASHTO SCOM for the Material Spec and Design Guide
- Finalize the Construction Guide
- Finalize the Best practices
Questions on the Chip Seals
What is Next for the Spray Group?

- Tack Coats
  - Materials spec
  - Design practice
  - Construction guide
  - Best practice

- Fog Seals
  - Materials spec
  - Design practice
  - Construction guide
  - Best practice
Final questions

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