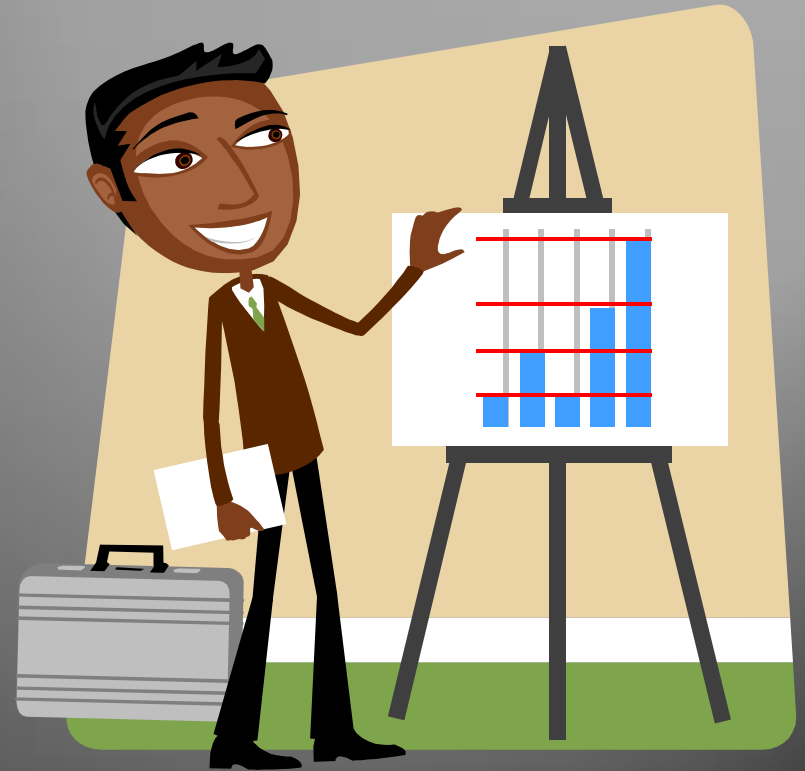


FHWA Emulsion Task Force (ETF) Chip Seal update

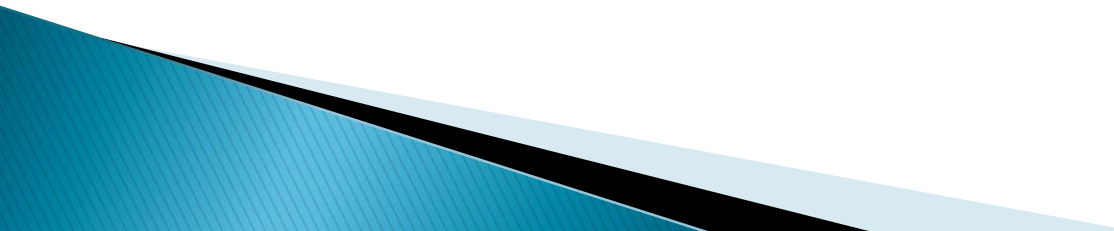
R. Gary Hicks and Scott Shuler
October 8, 2014

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



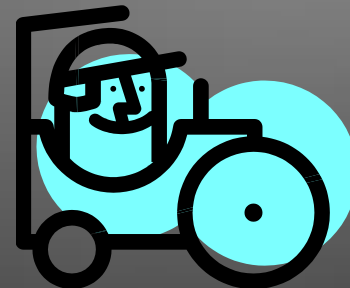
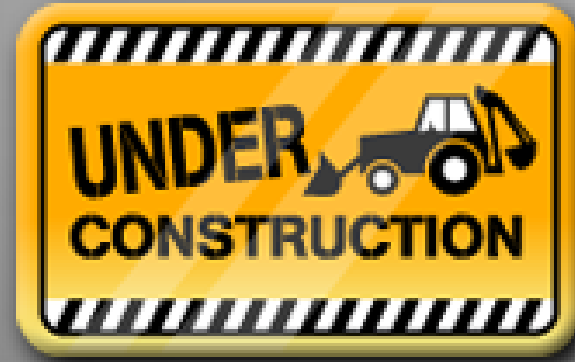
Elements of the Construction Guide

- ▶ **Description**
- ▶ **Materials**
- ▶ **Equipment**
- ▶ **Construction**
- ▶ **Quality Control**
- ▶ **Agency Acceptance**
- ▶ **Method of Measurement**
- ▶ **Basis of Payment**



Equipment Used for Chip Seals

- ▶ **Equipment**
 - ▶ 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

R. Gary Hicks

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