Overview

- Changes in Our Program
- Challenges we have faced
- Future Plans and Initiatives
Background

- Field Testing about 400,000 tons of mix a year, with around 900 plant samples taken.
- Labs in 2018 tested 133 HMA box samples, 388 PG Binder, 165 Emulsified Asphalt, and 500 Cores samples
- Review and Approved 140 mix designs
- QA Spec introduced around 1995
- 60/40 - QA vs Method spec
Challenges we have Faced

- Increasing rate of failures, and long process of negotiated outcomes for Method Spec
- Applying single level of QA effort to all projects regardless of size/risk
- Ultra-Thin bonded wearing course covered by Method Spec, and major challenge assigning penalty
Changes in Our Program

- New QA Tiered Approach
  - Moves us further into risk-based approach
- Changes to the QA Spec
  - UTBWC to QA Spec
- Performance Related Testing
Changes in Our Program

- Treatment Type/Life Expectancy should consider the following:
  - Subbase conditions
  - Treatment type (Structural vs. Functional)
  - ADT/ESAL’s/PvD
  - Thickness design

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- **Consider constructability/anticipated production limitations when choosing mix quantity**

- • Treatment Type/Life Expectancy should consider the following;
  - Subbase conditions
  - Treatment type (Structural vs. Functional)
  - ADT/ESAL’s/PvD
  - Thickness design

- N/A, See QAP

- QA Tier I

- QA Tier II

- QA Tier IV

- QA Tier III
Changes in Our Program

• QA Tier I - Statistical Pay factors: 3000 ton lots, Air Voids 6 samples, AC Content 6 samples, Density, Joint Density, Ride

• QA Tier II - Statistical Pay factors: Variable sub lot sizes, Air Voids 3-4 samples, AC Content 3-4 samples, Density, Joint Density, Ride

• QA Tier III - Statistical Pay factors: 3000 ton lots, Gradation 6 samples, AC content 6 samples, Density, Joint Density, Ride

• QA Tier IV - Pass/Fail: Gradation, AC Content, Mix Temp, Air Voids QAP level I& II, VMA QAP level I& II, Density, Joint Density
Changes in QA Specs

- Increase use of Statistical Pay Factors
  - Everything except small quantities
- Moving to AASHTO M332
- Removed Marshall
- Eliminate TSR for mix design approval, and replace with HWT and I-FIT
- Revision to QC Plan requirements
- Align QA Test and Density Core Lots
Performance Related Specifications

- Balanced Mix Design Special Provision on two project
  - Poultney-Castleton, 8400 tons
  - Bristol-Starksboro, 5900 tons
- Testing every 3000 tons
  - Rut depth < 10mm
  - SIP > 15,000 passes
  - FI > 10

Bituminous Concrete QA Updates
Future Plans and Initiatives

- Following 2016 FHWA QA Stewardship Review
  - Move toward sampling at the paver.
  - Begin getting extracted Asphalt Content from ignition oven, through central lab testing.
- Revised HMA QA Spec going out this winter for 2020 pilot, and will be reviewed with industry.
- Full incorporation of Performance Related test into QA Specification
Closing

Questions or Comments?

Thanks!

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