NEW & RECONSTITUTED MIX ETG-CONSTRUCTION TASKFORCE

MEMBERS

Erv Dukatz

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Lee Gallivan

Jim Musselman

Ron Sines

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GOALS

1. Back to the basics on how to achieve Density (pavement performance). Do we want to expand scope to pavement quality and incorporate what AI is doing with FHWA?
2. Prepare Tech Briefs/Synthesis that
    a. Provide When, where and how;
    b. Provide WHY these procedures/practices must be followed
    c. using language understandable by
        i. Policy makers
        ii. Practicing engineers
        iii. Agencies
        iv. Contractors
        v. Consultants
        vi. Academicians

The Density Roadmap - original

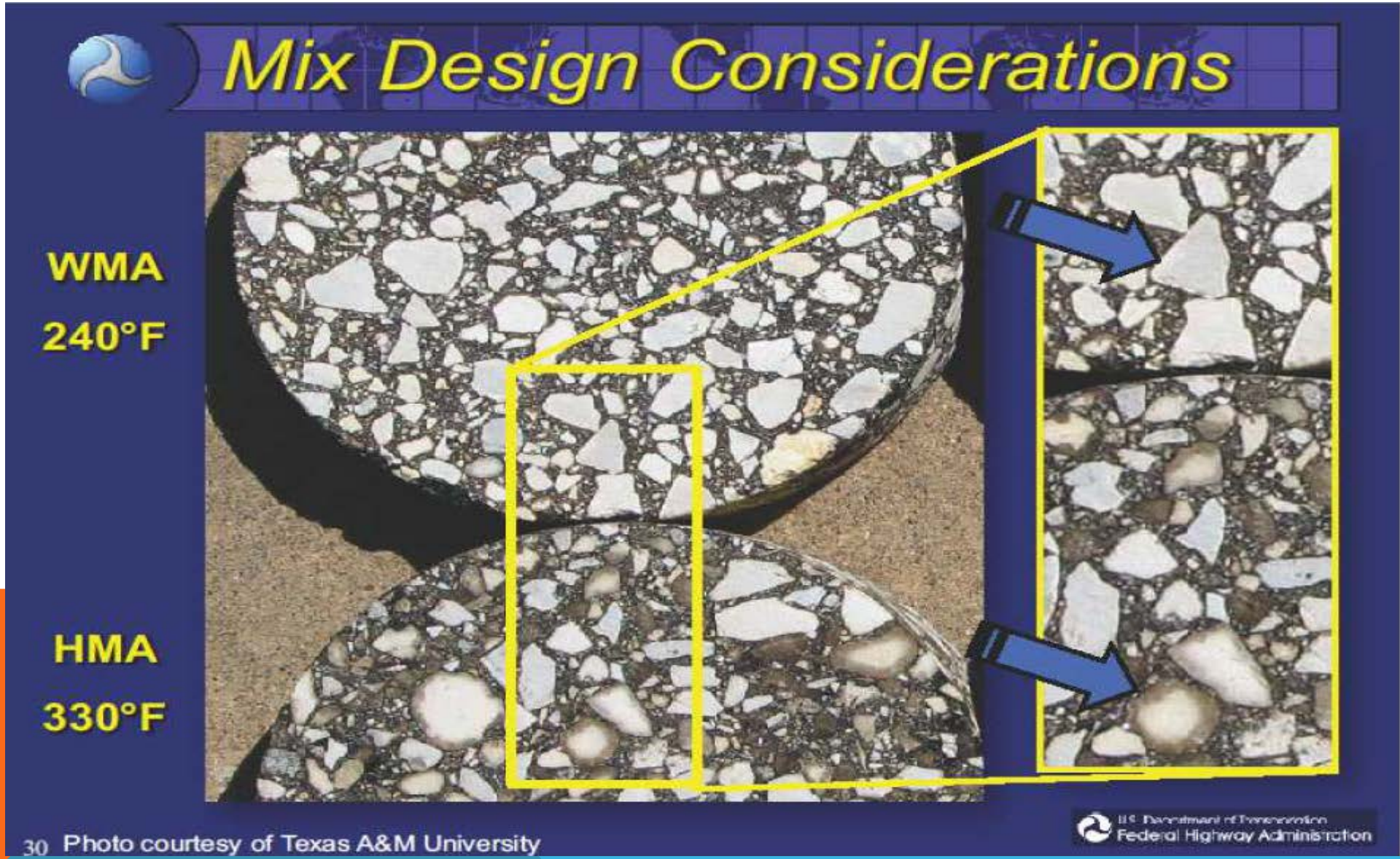
1. Mixture properties (mix design)
2. Layer Thickness
3. Plant operations
4. Temperature of mix
5. Equipment
6. Construction operations
7. Specifications
8. Training/Proficiency
9. Mixture Types
10. Tack Coats
11. Moisture in the mix
12. Compaction measurement tools
13. Acceptance requirements
14. Design Layers
15. Cold planning (Milling)

"...contactors are put into the position of trying to achieve compaction over existing materials which may not provide the needed stability to achieve the specified density." Ron Sines

PAVEMENT FAILURE


Rutting is in the surface mix
Coarse-graded Heavy-duty 19mm Mix at
Westrack - SuperPave research test track

EFFECT OF MIX TEMPERATURE AND AGGREGATE ABSORPTION



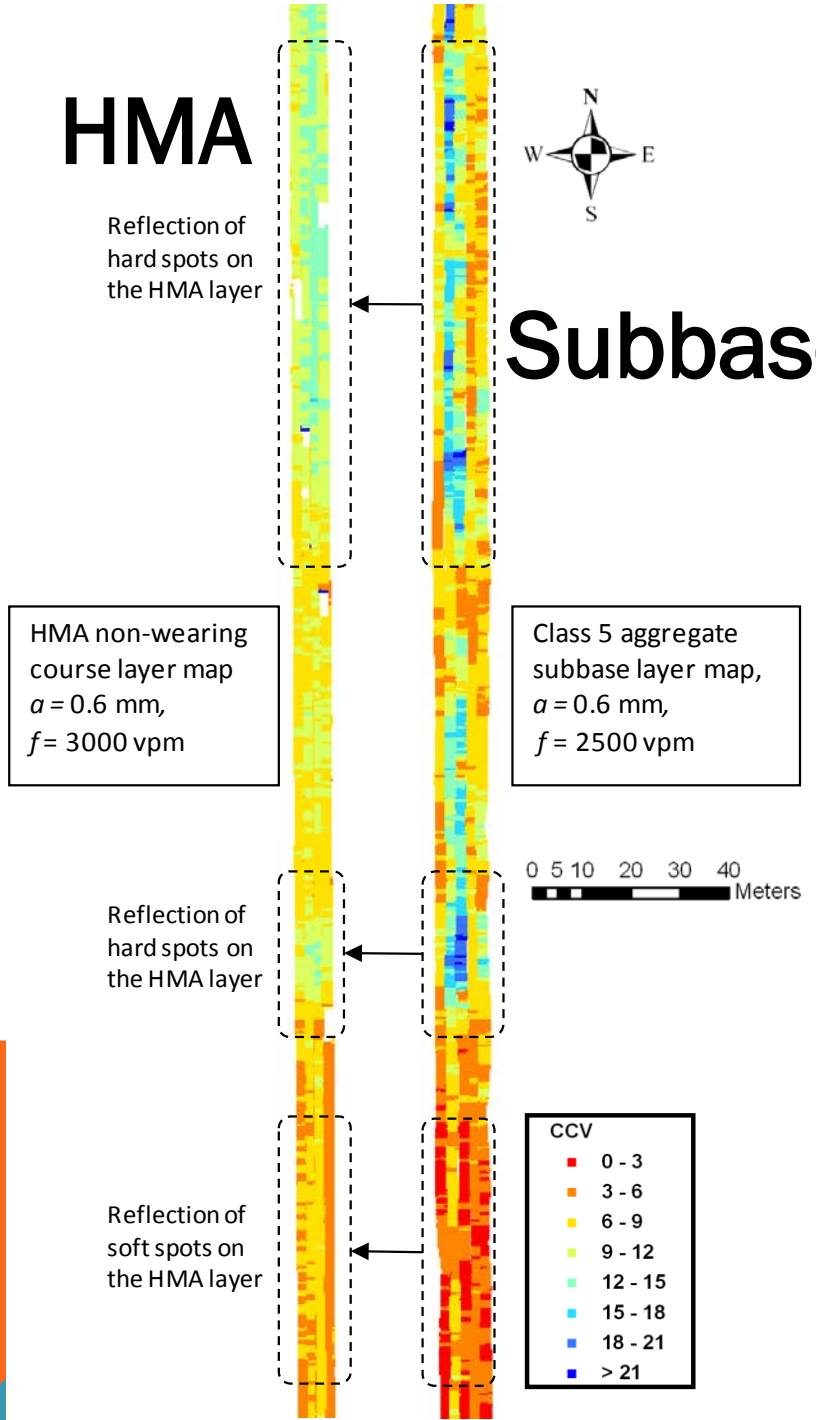
Hamburg Wheel Tracker Results

Same Mix,
Same Aggregate,
Same Air Voids…

Different PG Bitumens.

Effect of Moisture

Identify Weak Spots



Courtesy Transtec, Inc.

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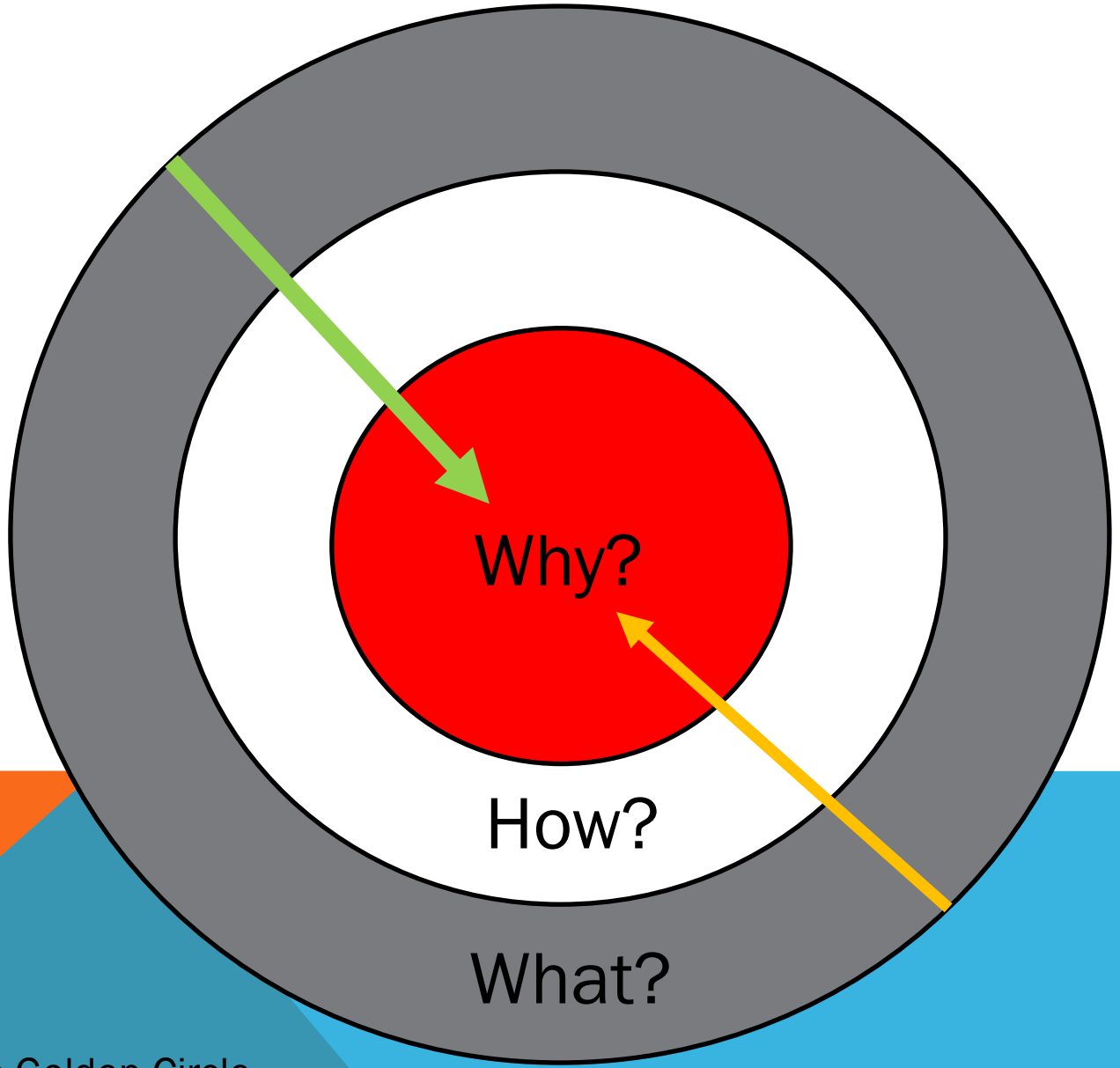
Added

16. Longitudinal Joints
17. Site conditions

Critical Elements Affecting the Compaction of Asphalt Pavements

Property		Ranking
Layer/lift Thickness	Project requirements	1
Acceptance Requirements	Project requirements	2
Mixture Properties (Mix Design)	Mix Characteristics	3
Tack Coats	material laydown	4
Design Layers	Project requirements	5
Mixture Types	Mix Characteristics	6
Specifications	Project requirements	7
Site Conditions	Project requirements	8
Temperature of the Mixture	Plant operations	9
Longitudinal Joints	material laydown	10
Plant Operations	Plant operations	11
Equipment	material laydown	12
Cold Planing/milling	material laydown	13
Training / Proficiency	Project requirements	14
Compaction Measurement Tools	material laydown	15
Construction Operations	material laydown	16
Moisture in the Mixture	Plant operations	17

WHY (YOUR BELIEFS): *NOT HOW OR WHAT*



Simon Sinek's Golden Circle

Action Plan

- Resurrect Synthesis request for Best Density Practices
- Submit with AFK10 and
- Submit through Mix ETG

- Shepherd: Jim Musselman -FDOT