December 20, 2023
Meeting – HMA Tech Team – Spec Subcommittee

Location: Teams Meeting / Galena Conference Room

Date: December 20, 2023

Time: 1:00 pm to 3:30 pm

Attendance

- Ali Arabzadeh
- Albert Kilger
- Dan Kopacz
- Debbie Schwerman
- Jeff Anderson
- David Hose
- Travis Kurey
- Joe Kyle
- Scott Syron
- James Pforr
- Derek Frederixon
- Neal Atanasoff
- Jeremy Barron
- Steve Bloedow
- Carl Johnson
- Jon Wixom

Agenda Items

1. QC Asphalt Content to Trigger Dispute Resolution
    - Have had some issues with communicating low AC tests so that dept. can take a non-random sample.
    - Interim step until PWL is implemented for AC.
    - Scott S.: What is the timeline for notifying of a low QC test?
        - The notification requirement is separate from the documentation requirement. The specification does not specify a timeframe, just to notify the engineer when the result falls outside of the action limits. The implied timeframe would be immediately upon knowledge of the nonconforming test.
        - Scott S.: This should be communicated better to the technicians. Currently the technicians' supervisors are contacting.
            - Dan K.: The way it is written the notification is supposed to be immediate – no different than a low air void notification for process control.

- **Action Item**: Dept. will revisit this language and clarify it further as part of AWP spec reorganization efforts.
- Derek F.: The definition of engineer is vague.
    - Many people fall under the engineer definition, which is often defined as the secretary of the DOT or a representative of the secretary.
- For now, notifying of low asphalt contents should be discussed during the pre-pave meeting.

2. Change Test Strip Outermost Locations for Correlation to 1.0 foot from 1.5 feet to Coincide with Changes to Minimum Distance Restrictions (1.0 from Unrestricted Edge)
    - Carl J.: Consider adjusting PWL pay factors or values to accommodate intentionally placing tests at the edge where if you're paving anything else, it would be a lower threshold for acceptance.
        - One way that this has been mitigated currently is that during the test strip the contractor rolls the joints more than they would on a typical mainline knowing that when they get to production, they have a lower threshold to meet.
        - James Pforr: Another option is to keep the mainline locations for PWL the same but use the LJD tests (which are for information only during a test strip) in the actual correlation to increase its strength.
    - **Action Item**: Clarify how many LJD cores are taken for information only in a Test Strip. Current practice seems to be 1 LJD core/zone for a total of 2.

3. New Gauge/Pay Gmm Proof of Concept Worksheets
    - Presented proof of concept of determining daily Gmms from PWL worksheet.
        - Density worksheet (hma-density-field-ws) would have an additional hidden column for Density for Pay. Once the daily average Gmm is determined, it is entered into the worksheet and the densities will recalculate based on the actual Gmm. These can be copied and pasted into the PWL spreadsheet.
        - PWL production worksheet would have a new tab called Gmms for Pay. This tab would contain a simple list of dates and the daily average for each date of production so it can simply be copied and pasted into the Density worksheet to adjust the density values.
    - James P.: What happens if the result goes from passing to failing after adjusting the daily Gmm and extents of failing material were not measured.

    - We would use a default assumption for the extent, such as 50 ft in each direction and take a credit.
        - **Action Item**: Investigate previous data to see what a typical length is for failing material.
            - Another option could be to just leave the failing results in the PWL calculation.
- Dan K.: We would like to implement this for 2025.
    - Debbie S.: Training through HTCP would be the only barrier to entry to rolling this out.
- Debbie S.: If there was a big adjustment at the plant, would we be able to use non-random tests in determining the average daily Gmm?
    - Probably not since we do not currently enter non-random tests in the PWL spreadsheet. The daily average Gmm is based on the tested Gmms for Pay that are entered into the worksheet.

4. AWP Specification Reorganization
    a. Review Industry feedback to-date
        - Derek F.: Why do we need a volumetric test strip for different thicknesses of the same mix?
            - We don't. Language will be adjusted. However, you would for a density test strip.
        - Neal A.: Should there be flexibility for leveling layers or other instances that allow additional paving beyond the test strip at the contractor's risk?
            - This can be brought up in future tech team meetings as this would be a proposed change and not feedback specific to the reorganization.
        - Derek F.: Change the limitation for test strips from "Two test strips will be allowed to remain in place per pavement layer per contract" to add "per mix design".
            - Agreed. Will be implemented.
        - Neal A.: Will the requirement for continuing charts, records, and testing frequencies for each mixture design from contract to contract still apply to PWL Lite?
            - This is a remnant from QMP. We are going to review the documentation requirements.
        - Dan K.: Are QC tests going to be uploaded to the AWP system?
            - Scott S.: QC tests will be entered into AWP as well. Eventually might be able to import the PWL data.
        - Neal A.: Does the Pay adjustment for SMA Test Strip Table only apply

to referee tests?

- Comes from QMP. The test strip for SMA is going to stay the same for now. Dispute resolution occurred when there was material outside of the limits and then the pay adjustments were made according to the table based on those results. This table just combines the criteria.

- Derek F.: SMA limits for air voids…
  - Currently limits are only placeholders until additional analysis is completed.

b. Interpolated Gradation Action Limits

- Added gradation limits to PWL programs for No. 4, 16, and 30 sieves to account for all mixture types that may be paved under PWL in the future.
- These limits only apply to sieves for which there is a specified target for a specific sieve.
- Debbie: The 4.75mm control limit on SMA mixes might need to be adjusted.

c. Modifications to Layout

i. Example on next page…

- Presented new layout to improve readability and reduce jumping around the document.
- Split into mixture testing and density testing programs. The density programs are not related to the mixture programs.

- **Action Item**: Industry would like a summary of disputes. How many times did we not compare, how many times did the region test out the lot, etc.

Current – V1	Proposed – V2
Project Requirements Conformance Contractor Testing Personnel Requirements Laboratory Requirements Mixture Testing Programs Percent Within Limits Mixture Testing Sampling and Testing Data Analysis Corrective Action Small Quantities Temporary Pavements Department Acceptance Density Testing Programs Percent Within Limits Production (Nuclear Gauge) Sampling and Testing Longitudinal Joint Density Data Analysis Corrective Action Department Testing Dispute Resolution Payment Adjustment	**Project Requirements** General Personnel Requirements Laboratory Requirements Documentation HMA Test Strip Conformance Contractor Testing Mixture Testing Sampling and Testing Data Analysis Corrective Action … Density Testing Department Testing Dispute Resolution Payment Adjustment SMA Test Strip …. Percent Within Limits [Production] Conformance Contractor Testing Mixture Testing Sampling and Testing Data Analysis Corrective Action Density Testing Sampling and Testing Longitudinal Joint Density Data Analysis Corrective Action Department Testing Dispute Resolution Payment Adjustment