PAPA Regional Technical Meeting

March 14, 2023 District 12

Russell B Duda District 12 Materials Mgr. 724.439.7442 rududa@pa.gov





2022 Asphalt Mix Testing

Testing:

- Mixture Acceptance by box sample 68 Lots
- Density Acceptance by pavement core 63 Lots

Failure:

- AC Content failures 0
- Gradation failures 0
 - 200 Sieve n/a
 - Primary Control Sieve n/a
- Density failures 0

Retests Requested:

- Requested n/a
- Retest Results n/a
 - # passed n/a
 - # failed n/a



2022 Longitudinal Joint Density Performance

	Longitudinal Joint Density Summary									
Year	2022	2021	2020	2019	2018	2017				
Lots Tested	25	24	12	39	48	41				
% Density Range	88.8-98.0	85.1-98.2	88.4-97.4	86.7-99.0	84.4-97.2	90.1-98.5				
% Average Density	94.3	94.5	93.5	93.0	93.3	94.3				
Total \$ for Incentive Lots	154,000	147,750	61,868	180,250	184,000	244,250				
Total \$ for Disincentive Lots	0	-15,318	0	-1,200	-8,200	-1,440				
Delta (Incentive – Disincentive)	154,000	132,432	61,868	179,050	175,800	242,810				

pennsylvania

DEPARTMENT OF TRANSPORTATION



2022 Longitudinal Joint Density Performance

- Longitudinal Joint Type
 - Which joint type is being utilized most?
 - Tapered

- We suspect we may get better or at least equal density with Vertical, however leaving the edge in place over night can potentially cause issues.

- Are you having any longitudinal joint issues?

- No issues are being experienced. Average Joint Density for the last 25 samples is 94.5%

We did a J-Band pilot on SR906/B10 (ECMS#111658) in 2021. The J-Band was placed in the fall of 2021, and we have had two (2) Field Views to date (April 8, 2022 (6 months) and Oct 3rd, 2022 (12 months)). Both field views showed the material performing well with only a few small cracks noticed in October that weren't there in April. Next field view is April 2023.



- ECMS#31818, Let Date 4/27/23, SR-711, Westmoreland County, 1,414 Tons
- ECMS#74342, Let Date 4/13/23, SR-711, Fayette County, 1,010 Tons
- ECMS#81751, Let Date 1/26/23, SR-356, Westmoreland County, 8,973 Tons



- ECMS#88508, Let Date 7/13/23, SR-70, Westmoreland County, 7,936 Tons
- ECMS#90834, Let Date 2/2/23, SR-3030, Westmoreland County, 4,737 Tons
- ECMS#93507, Let Date 4/13/23, SR-2040, Fayette County, 1,216 Tons



- ECMS#96657, Let Date 1/12/23, T-311, Fayette County, 6,649 Tons
- ECMS#108478, Let Date 4/13/23, SR-40, Washington County, 82,000 Tons
- ECMS#108815, Let Date 4/27/23, SR-30, Westmoreland County, 90,000 Tons



- ECMS#108637, Let Date 3/30/23, SR-381, Fayette County, 34,363 Tons
- ECMS#110065, Let Date 3/2/23, SR-18, Washington County, 29,636 Tons
- ECMS#111334, Let Date 2/16/23, SR-4015, Greene County, 21,673 Tons



- ECMS#113683, Let Date 2/16/23, SR-19, Greene County, 9,587 Tons
- ECMS#116175, Let Date 1/26/23, SR-188, Greene County, 1,010 Tons
- ECMS#116186, Let Date 3/30/23, SR-136, Westmoreland County, 13,342 Tons



2023 Maintenance Asphalt Tons (Estimated)

County1240	9.5 mm	9.5 mm LVR	12.5 mm	19.0 mm	19.0 mm LVR	25.0 mm	25.0 mm LVR
1210	3,000			10,000		1,000	
1220	500			100		50	
1240	2,500			5,000		6,000	
1250	4,000			200		200	
TOTAL TONS	15,400			13,500		17,100	

LVR = Low Volume Roads

Ę



District 12 eTicketing Status

- Please discuss your experience with Asphalt eTicketing Projects.
 - Easy to keep track of tickets
 - Lack of access for Contractors and Materials staff
 - Get access for Materials Unit and Contractors
- Are contractors in your District ready to implement in 2024?

- Contractors in D-12 will be ready to implement in 2024



District 12 - 6.3 & SMA Projects

- List of 2023 6.3 mm Thin Lift projects
 - No 6.3mm projects in D-12
- List of 2023 SMA Projects
 - ECMS#75978 SR70/E10 SMA will most likely not be placed this year
 - 2. ECMS#75978 SR981/Q20 Planned to be placed
 - in September 2023



District 12 RAP Mix Percentages

- Please provide average RAP % for the following mixes:
 - Wearing 25% with 303,637 total tons produced
 - Binder 25% with 111,590 total tons produced
 - Base 25% with 92,200 total tons produced
 - Overall RAP 25% of all mixes for 507,427 total tons
- What are the impediments to increasing RAP% in the mixes?
 - Mechanical issues at the plants
 - Cost of switching PG Grades



District BMD HWTT/IDEAL-CT Implementation

- Please discuss District opinion of owner contractor readiness to implement BMD in 2026.
 - We will be ready to implement by 2026

- Please discuss any issues, problems, opportunities, successes, etc. you would care to share?
 - The lack of a hard spec to date makes it difficult to know what to tweak to achieve passing results.



Mix Design

 Have you had any issues with reducing the mix design gyration numbers to 50 & 75?

• No major issues

- Would you be in favor of reducing nDesign gyrations to one level? Yes, no or no opinion?
 - Yes, but we fear road variations may dictate more than one.



District 9.5 mm & 19.0 mm High RAP Mixes for LVR Mixes

 Have your maintenance forces completed a 19.0 mm or 9.5 mm for Low Volume Roads mix project yet?

– None in D-12 in 2022



District Rehabilitation Projects

- Have you bid and/or completed any crack and seat projects/rubblization/asphalt structural overlay in the past few years?
 - Bid and completed SR366/20R (ECMS#98449) in 2015. Crack & Seat existing 9" Reinforced Concrete Pavement built in 1972. Overlaid with Superpave PG64-22 in one direction and crumb rubber in the other direction.

• None programmed for 2023 or 2024 to date



District Innovations & Best Practices

 Please discuss any Innovations/Best Practices that you have piloted or recommend.

– We are using SMA on all interstate projects.



2022 District Issues - Problems

 Please discuss any issues, problems, etc. that you had with asphalt paving producers or contractors. How did you resolve them?

No significant issues recently



2023 District Changes - Direction

- Please list discuss any District changes to policy, specifications, special provisions, staff, etc. that are relevant to the asphalt paving industry.
 - eTicketing Pilot Projects
 - HWT/CT-Index Pilots
 - New D-12 Pavement Engineer Christopher Baker



Questions/Comments???



Russell B Duda District Materials Mgr. - D-12 724.439.7442 rududa@pa.gov

