# PAPA Regional Technical Meeting

# March 17, 2022 8:00 AM to 3:00 PM District 5

Leonard Walutes District Materials Manager (610) 871-4424 Iwalutes@pa.gov





## 2021 Asphalt Mix Testing

# <u>Testing:</u>

- 141 Lots- Mixture Acceptance by box sample
- 126 Lots Density Acceptance by pavement core

# <u>Failure:</u>

- <mark>2</mark> AC failures
- 4 Gradation failures
- O Density failures



# 2021 Longitudinal Joint Density Performance

	Longitudinal Joint Density Summary									
Year	2021	2020	2019	2018	2017	2016				
Lots Tested	13	1	34	27	16	4				
% Density Range	84.0-96.4	85.4-90.4	88.3-98.6	87.0-96.8	87.2-96.5	86.2-91.8				
% Average Density	90.6	87.8	91.9	91.9	92.1	89.0				
Total \$ for Incentive Lots	19,000	38,746	75,584	91,350	26,950	0				
Total \$ for Disincentive Lots	0	0	0	0	-22,000	0				
Delta (Incentive - Disincentive)	19,000	38,746	75,584	91,350	4,950	0				

REF: Section 405 Evaluation of Bituminous Pavement Longitudinal Joint Density and Payment of Incentive/Disincentive



## 2021 Longitudinal Joint Density Performance

- Longitudinal Joint Type
  - Which joint type is being utilized most?
    - Vertical
    - Tapered is the most utilized.
  - Are you having any longitudinal joint issues?
  - No
  - Did you or are you planning to pilot J-Band (Void Reduction Asphalt Membrane VRAM)? If you piloted, what are your observations?
  - SR 22 in Lehigh County is in process. Started 2021 into 2022.



### 2021 Longitudinal Joint Density Performance

- Longitudinal Joint Type
  - Did you or are you planning to pilot J-Band (Void Reduction Asphalt Membrane VRAM)? If you piloted, what are your observations.
  - SR 924 in Schuylkill County used J-Band in 2021.
    Approximately 2.4 miles in the center line joint.
  - SR 380/81 J Band projects were completed about 3-4 years ago, approximately 3 miles of center line joint combined and are showing no wear or unraveling to this point and are being evaluated annual.



#### 2022 Planned Construction Projects

- List Projects With > 1000 tons of Asphalt Paving
  - ECMS #110070, Let Date 4/14/22, SR 22, Northampton County, 49,900 Tons
  - ECMS #89215, Let Date 5/26/22, SR 12, Berks County, 6,800 Tons
  - ECMS #101654, Let Date 5/12/22 SR 2012 Monroe County, 10,200 Tons
  - ECMS #101861, Let Date 3/31/22 SR 145, Lehigh County, 1,700 Tons
  - ECMS #116310, Let Date 4/28/22 SR 2012, Northampton County, 2,700 Tons
  - ECMS #113749, Let Date 4/14/22 SR 903, Carbon County, 4,600 Tons



#### 2022 Planned Construction Projects

- List Projects With > 1000 tons of Asphalt Paving
  - ECMS #115341, Let Date 4/14/22, SR 3017, Monroe County, 8,000 Tons
  - ECMS #117340, Let Date 6/09/22, SR 562, Berks County, 10,100 Tons
  - ECMS #113863, Let Date 7/28/22 SR 33 Monroe County, 26,750 Tons
  - ECMS #114399, Let Date 6/09/22 SR 61, Schuylkill County, 31,100 Tons



## 2022 Maintenance Asphalt Tons (Estimated)

County	9.5 mm	9.5 mm LVR	12. 5 mm	19.0 mm	19.0 mm LVR	25.0 mm	25.0 mm LVR	37.5 mm
5-1		5,234		9,343		3,450		
5-2		10,386		2,675				
5-3		9,602		1,360				
5-4		7,207		4,248				
5-5		16		9,900			11,025	
5-6		13,945		2,589				
TOTAL TONS		46,390		30,206		3,450	11,025	

LVR = Low Volume Roads



#### District eTicketing Pilots

• Please discuss your experience with Asphalt eTicketing Projects.

The District doesn't have experience yet with e-ticketing. Last years the supplier's operating systems were not set up to transmit to the e-ticketing App. We are scheduled to do 6 pilot projects this year which is a combination of the balance of last year and new this year.



#### District 6.3 & SMA Projects

- List of 2021 6.3 mm Thin Lift projects
  - 1. ECMS 96385 SR 22-08M, Lehigh County, 2,000 tons. placed in 2021.
- List of SMA Projects
  - 1. ECMS 87649 SR 80-23M, Monroe County, 30,000 tons.
  - 2. ECMS 72822 SR 78-13M, Multi Counties, 38,000 tons.
  - 3. ECMS 102311 SR 100-13M, Lehigh County 9,600tons.
  - 4. ECMS 85911 SR 81-25M, Schuylkill County (2023)



### District HWTT/IDEAL-CT Pilots

- Please list pilot HWTT/IDEAL-CT Pilot Projects
  - ECMS 112656 SR 940 completed 1 design.
  - ECMS 96426 SR 248 completed 1 design.
  - ECMS 113222 SR 3022 completed 4 designs.
  - ECMS 101802 SR 2009 3 designs ongoing.
  - ECMS 114350 SR 22 3 designs ongoing.
  - Any observations you would care to share?
  - We are in the early stages of gathering data with very limited results.



#### Mix Design

- Do you see any issues with reducing the mix design gyration numbers to 50 & 75?
  - No issues.
  - If yes, please explain.



#### 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?
  - If so, please discuss your observations & performance to date.

Yes, 3 different SRs in Berks County totaling 9,322 tons. Also, had an ECMS project. Contractor placed the 19mm and Maintenance completed sealcoat.

Pave wearing well on roads with and without sealcoat.

46,390 tons of 9.5mm due to be placed 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?
  - If so, please briefly discuss project and any take-aways?
  - SR 33/209 Monroe County completed in 2011, SR 80 in Carbon County completed in 2019. SR 443 project in Carbon County is in construction.
  - SR 33 visibly is holding up much better than any other section of SR 33 paved around the same time.
  - SR 80 was able to pave 156,00 tons in one paving season and received a \$106,000 IRI bonus



#### District Innovations & Best Practices

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

We purchased a new core rig about 3 years ago and continue to increased our investigative coring of bituminous pave.

We are looking to expand the use of the rig by adding an auger for investigative boring into subgrade/soil.

The District was recognized by the Administration and was nominated for an innovation award.



### District Innovations & Best Practices

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





#### 2021 District Issues - Problems

- Please discuss any issues, problems, etc. that you had with asphalt paving producers or contractors. How did you resolve them?
  - The majority of bituminous acceptance testing failures from last season were 37.5mm box samples.
  - The project was changed to 25mm for the remaining sections.
  - The District going forward will be going away from 37.5mm in design and utilize the 25mm.



#### 2022 District Changes - Direction

- Please list discuss any changes to policy, specifications, special provisions, staff, etc. that are relevant to the asphalt paving industry.
  - Tom Fish was promoted to Materials Manager 1 in May 2021.
  - The northwest area of the District is losing (3) inspectors due to retirement this year. Suppliers in that area have probably seen some new faces and will continue to do so in the near future. Please welcome them and work together to provide the best as we have done in the past.



#### Questions/Comments???



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