



# **PAPA Regional Technical Meeting**

## **Cranberry Twp.**

**March 17, 2020**  
**District 12**

Russell B Duda  
District Materials Manager  
(724) 439-7442  
rududa@pa.gov



# 2019 Bituminous Testing

## Testing:

- 105 Lots- Mixture Acceptance by box sample
- 92 Lots – Density Acceptance by pavement core

## Failure:

- 1 AC failures
- 0 Gradation failure
- 0 Density failures

## ▶ 2019 Longitudinal Joint Density Performance

	<b>Longitudinal Joint Density Summary</b>			
Year	2016	2017	2018	2019
Lots Tested	329	354	394	371
% Density Range	77.9-98.4	85.7-98.5	82.9-98	81.9-99
% Average Density	92.8	92.8	92.8	92.8
Total \$ for Incentive Lots	1,342,870	1,229,450	1,698,808	969,434
Total \$ for Disincentive Lots	(27,474)	(59,060)	(49,120)	(29,461)
Delta (Incentive - Disincentive)	1,315,396	1,170,390	1,649,688	939,973

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

# 2019 Longitudinal Joint Density Performance

	<b>Longitudinal Joint Density Summary</b>			
Year	2016	2017	2018	2019
Lots Tested	40	41	48	40
% Density Range	87.3 – 97.4	90.1 – 98.5	84.4 – 97.2	86.7 - 99
% Average Density	93.2%	94.3%	93.3%	93.0%
Incentive Lots				
Zero Lots				
Disincentive Lots				
Total \$ for Incentive Lots	\$176,500	\$244,250	\$184,000	
Total \$ for Disincentive Lots	-\$8,800	-\$1,440	-\$8,200	
Delta (Incentive – Disincentive)	\$167,700	\$242,810	\$175,800	

# 2019 Longitudinal Joint Density Performance

- Longitudinal Joint Type
  - Which joint type is being utilized most?
    - Tapered
  - One project used a vertical joint. We suspect we may get better or at least equal density with this method, 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 93%

## 2019 Percent Within Tolerance (PWL)

	<b>PWT SUMMARY</b>			
Year	2016	2017	2018	2019
Number of PWL Projects	11	15	8	9
Number HOLA	1	2	1	2
Number LTS	10	13	7	7
Average Pay Factors (%)				
Asphalt	100.11	100.64	101.02	101.30
PCS	99.46	98.53	97.71	99.89
#200 Screen	103.13	102.43	101.34	100.29
Density	103.50	103.90	103.97	103.59
Average Density	94.6	95.0	94.7	94.8
Average Overall Lot Pay Factor (%)	1.02	1.02	1.02	1.02
Bonus (\$)	\$121,392.28	\$209,443.08	\$334,119.45	\$299,057.12
Penalty (\$)	-\$28,014.25	-\$43,617.90	-\$75,428.26	-\$49,109.89

## 2020 Planned Construction Projects

- List Projects With > 1000 tons of WMA Paving
  - ECMS#111658, Let Date 12/12/19, SR 906, Westmoreland County, 18,003 Tons
  - ECMS#91581, Let Date 10/24/19, SR 70, Washington County, 20,683 Tons
  - ECMS#106559, Let Date 12/12/19, SR 21, Fayette County, 1,262 Tons
  - ECMS#88829, Let Date 2/27/20, SR 18, Washington County, 6,785 Tons
  - ECMS#89191, Let Date 4/2/20, SR 119, Westmoreland County, 39,666 Tons

## 2020 Planned Construction Projects

- ECMS#100460, Let Date 2/27/20, SR Varies, Greene County, 36,005 Tons
- ECMS#108311, Let Date 3/12/20, SR Varies, Fayette County, xxx Tons
- ECMS#108282, Let Date 3/26/20, SR Varies, Washington County, 62,809 Tons
- ECMS108357#, Let Date 4/2/20, SR Varies, Westmoreland County, 95,625 Tons

# 2020 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
12-1								
12-2		NOTE: data is being updated and slide will be replaced as soon as we receive it from D-12						
12-4								
12-5								
TOTAL								

LVR = Low Volume Roads



## District Innovations & Best Practices

- Have you tried a 6.33 mm Thin Lift project yet?
  - We have not tried 6.33 yet
- Do you utilize SMA on all Interstate Highways?
  - Yes
  - It is a premium product that we hope will perform better than SuperPave. Haven't used long enough to judge performance.
- We are still experiencing tracking (worse in summertime) but it's better than before.

## District Innovations & Best Practices

- Have your maintenance forces completed a 19.0 mm for Low Volume Roads mix project yet?
  - Have not done one yet, have one slated for 2020.
- Will your maintenance forces be piloting 9.5 mm for Low Volume Roads mix project?
  - No.
- Have you bid and/or completed any crack and seat projects/rubblization/asphalt structural overlay in the past few years?
  - IIC says crack and seat works great and would like to do more of it.

## District Innovations & Best Practices

- We are using SMA on all interstate projects.

# Questions/Comments???



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