

PAPA Regional Technical Meeting

State College

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District 3

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2019 Bituminous Testing

Testing:

- 106 Lots - Mixture Acceptance by box sample
- 95 Lots - Density Acceptance by pavement core

Failure:

- 0 AC failures
- 0 Gradation failure
- 2 Density failures

➤ 2019 Longitudinal Joint Density Performance

	Longitudinal Joint Density Summary			
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

- Longitudinal Joint Type
 - Which joint type is being utilized most?
 - Notch wedge
 - Which joint type is producing better density?
 - Not sure, joint type is not captured on the eCAMMS Lab report, joint type is only mentioned in the Remarks box on TR-447 and not tracked by LTS
 - Are you having any longitudinal joint issues?
 - Yes, low density results, vertical mismatch

2019 Percent Within Limits (PWL)

	District 3 - PWL SUMMARY			
Year	2016	2017	2018	2019
Number of PWL Projects Let	9	20	22	17
Number HOLA	1	3	4	0
Number LTS	8	17	18	17
Average Pay Factors (%)				
Asphalt Content	103.62	100.96	101.58	102.25
Primary Control Sieve	99.11	99.96	100.99	100.03
#200 Sieve	101.60	100.58	101.69	102.89
Density (Cores)	101.00	102.76	103.24	102.94
Average Density	94.5	94.5	94.8	94.2
Average Overall Lot Pay Factor (%)	1.02	1.02	1.02	1.02
Incentive (\$)	\$66,837.57	\$131,989.21	\$242,750.96	\$236,169.91
Disincentive (\$)	-\$18,450.16	-\$31,637.79	-\$33,145.21	-\$19,506.57

District Innovations & Best Practices

- Have you tried a 6.33 mm Thin Lift project yet?
 - 2019 Northumberland County, SR 147-116 13.65 miles
 - 23,700 tons placed at 1" compacted depth
 - Time available for compaction, 11-13 minutes
- Project accepted density by daily roller pattern using nuclear gauge, completing form TR-4276B
- Material acceptance was by loose box samples sent to LTS

Thin Lift SR 147-116



Thin Lift SR 147-116

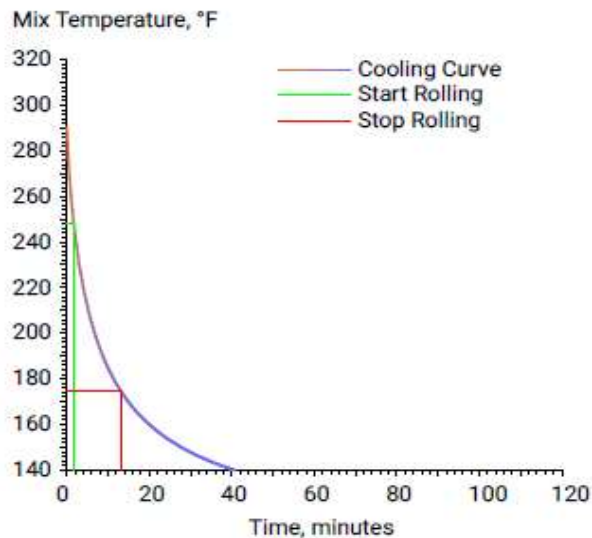


Thin Lift 6.3mm Density

PaveCool 3.0 Report

Project: Example 2_76-22

Date & Time		Start Rolling*	Stop Rolling*
1/27/2020 10:56 AM		2 minutes (248 °F)	13 minutes (175 °F)
Mix Type	Binder Grade	Thickness	Delivery Temp.
Fine/Dense	PG 76-22	1.00 in.	290 °F
Air Temp.	Wind Speed	Sky	Latitude
80 °F	5 mph	Humid & Hazy	41 ° North
Existing Surface	Moisture	State	Surface Temp.
Asphalt			100 °F



SR 147-116 Completion Photo



District Innovations & Best Practices

- 6.3 mm Thin Lift

District advertised Tioga SR 6-155 and Snyder SR 104-022 with a microsurfacing, 6.3mm, and 9.5mm FG alternate bids in spring of 2020

- Do you utilize SMA on all Interstate Highways?

- Yes, even on ramps

- Are you still having tack coat issues? What tack coat type do you predominantly specify? Why?

- Yes Tracking, but not as much as with AET.

District will typically specify NTT/CNTT to reduce tracking

District Innovations & Best Practices

- Have your maintenance forces completed a 19.0 mm for Low Volume Roads mix project yet?
 - District used 146,301 tons for Low Volume Roads in 2019
 - The 19.0mm FG mix allowed for a tighter surface and better compaction results
- Will your maintenance forces be piloting 9.5 mm for Low Volume Roads mix project?
 - Dept has not issued the 9.5mm High Rap for LVR memo for DF paving
 - District will not be including the Sept 23, 2019 SSP for 9.5mm High Rap for LVR in ECMS projects

District Innovations & Best Practices

- Please discuss any Innovations/Best Practices that you have piloted or recommend.
 - ECMS 76400 LLAP pilot project ongoing in 2020, 21, 22. Consists of 3" depth LLAP binder and 2" depth LLAP SMA
 - Overbanding of all longitudinal joints is now incorporated into the specification
 - District will be piloting 3 asphalt paving projects for the HWT testing specification in 2020
 - ECMS 113888 Columbia SR 42-114 and SR 487-119
 - ECMS 114220 Snyder SR 104-033 and SR 522-086
 - ECMS 114295 Lycoming SR 1005-035

2020 District Changes - Direction

- Please discuss any changes to policy, specifications, special provisions, staff, etc. that are relevant to the asphalt paving industry.
 - District will not be approving HMA mix designs in eCAMMS
 - Submit 2020 bit JMF's with NEW PG grades, ex: PG64S-22
 - Will not be advertising/letting HOLA projects
 - District will bid NTT/CNTT on most paving projects

Questions/Comments???



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