

2019 PAPA Regional Technical Meetings

9.5mm WMA HIGH RAP MIX
for Low Volume Roads

OBJECTIVE

1. Reasonable cost savings
2. Product that will perform on low volume routes

CHALLENGES

- Skid Resistance Level (SRL)
- Colder Regions
- Dust / Binder Ratio
- Max RAP%
 - 50%???

SRL

A D T	S R L
20,000 and above	E
5,000 to 20,000	E, H, Blend of E & M, or Blend of E & G.
3, 000 to 5,000	E, H, G, Blend of H & M, or Blend of E & L
1,000 to 3,000	E, H, M, G, Blend of H & L, or Blend of G & L OR Blend of E & L
1,000 and below	A N Y

AADT AND ADTT

AADT < 2000

ADTT < 250

MAX RAP %

50%?

MAX RAP %

~~50%~~
↓
40%

VIRGIN BINDER REQUIREMENT

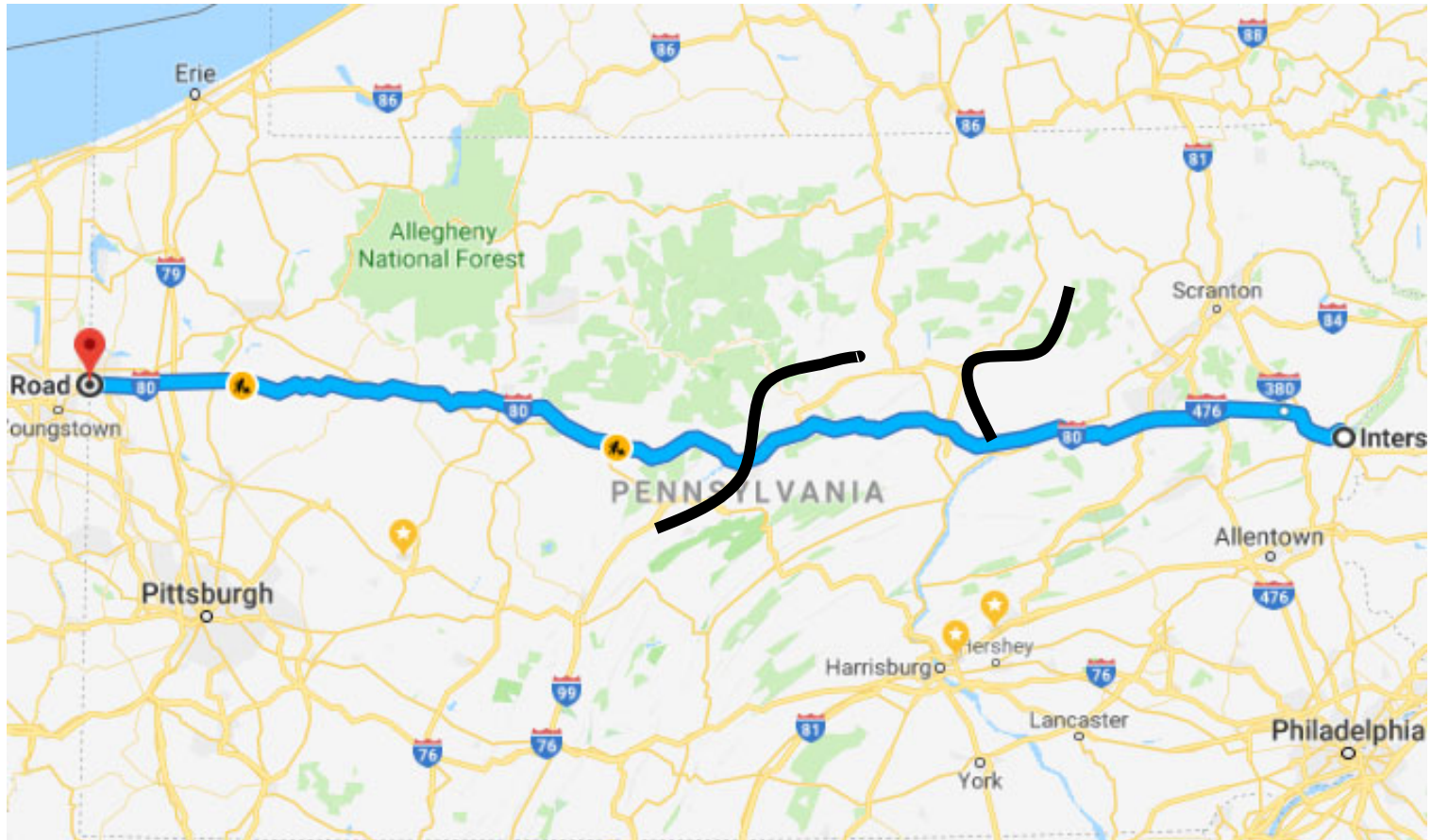
$$25\% \geq \text{RAP}\% > 15\%$$

- PG 64-22
 - PG 58-28*
- *Either binder can be used (*Exception)*
 - *No blending evaluation necessary*

COLDER REGIONS



COLDER REGIONS



VIRGIN BINDER REQUIREMENT

$$25\% \geq \text{RAP}\% > 15\%$$

PG 58-28

For roadways that cross or span I-80

$25\% \geq \text{RAP}\% > 15\%$ RANGE

- $N_{\text{design}} = 50$
- % Air Voids @ N_{design} (Min 3.5%, Max 4.0%)
- PCS (#8) → Min 42%, Max 67%
- F/A Ratio → Min 0.6, Max 1.2%
- VFA → Min 73%, Max 80%

VIRGIN BINDER REQUIREMENT

$$40\% \geq \text{RAP}\% > 25\%$$

PG 58-28**

** A different grade of virgin asphalt may be approved if the contractor chooses to have the asphalt binder in the RAP evaluated by LTS, and that evaluation shows that blending will achieve a PG 64-22 grade at the proportions in the JMF.

40% ≥ RAP% > 25% RANGE

- $N_{\text{design}} = 50$
- % Air Voids @ N_{design} (Min **3.0%**, Max **3.5%**)
- PCS (#8) → Min 42%, Max 67%
- F/A Ratio → Min 0.6, Max **1.3%**
- VFA → Min **77%**, Max **83%**

NEXT STEPS

- DRAFT SOL
- REVIEW SOL
- FINALIZE THE SSP

QUESTIONS?

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