

Quadrant: S
Section: 8
Sublot: 1

Laboratory Diary

General Description of Mix and Materials

Design Method: Super
 Compactive Effort: 80 gyrations
 Binder Performance Grade: HiMA
 Modifier Type: Kraton
 Aggregate Type: Granite/Sand/RAP
 Design Gradation Type: DGA

Avg. Lab Properties of Plant Produced Mix

| Sieve Size | Target | QC |
|-------------------------------|--------|-------|
| 25 mm (1"): | 100 | 100 |
| 19 mm (3/4"): | 100 | 100 |
| 12.5 mm (1/2"): | 100 | 99 |
| 9.5 mm (3/8"): | 99 | 98 |
| 4.75 mm (#4): | 74 | 71 |
| 2.36 mm (#8): | 51 | 52 |
| 1.18 mm (#16): | 39 | 42 |
| 0.60 mm (#30): | 26 | 30 |
| 0.30 mm (#50): | 15 | 16 |
| 0.15 mm (#100): | 9 | 9 |
| 0.075 mm (#200): | 6.2 | 5.4 |
| Binder Content (Pb): | 5.9 | 6.0 |
| Eff. Binder Content (Pbe): | 5.2 | 5.2 |
| Dust-to-Eff. Binder Ratio: | 1.2 | 1.0 |
| RAP Binder Replacement (%): | 18.4 | 16.1 |
| RAS Binder Replacement (%): | 0.0 | 0.0 |
| Total Binder Replacement (%): | 18.4 | 16.1 |
| Rice Gravity (Gmm): | 2.470 | 2.460 |
| Bulk Gravity (Gmb): | 2.371 | 2.364 |
| Air Voids (Va): | 4.0 | 3.9 |
| Agg. Bulk Gravity (Gsb): | 2.654 | 2.64 |
| VMA: | 16.0 | 16 |
| VFA: | 75 | 75 |

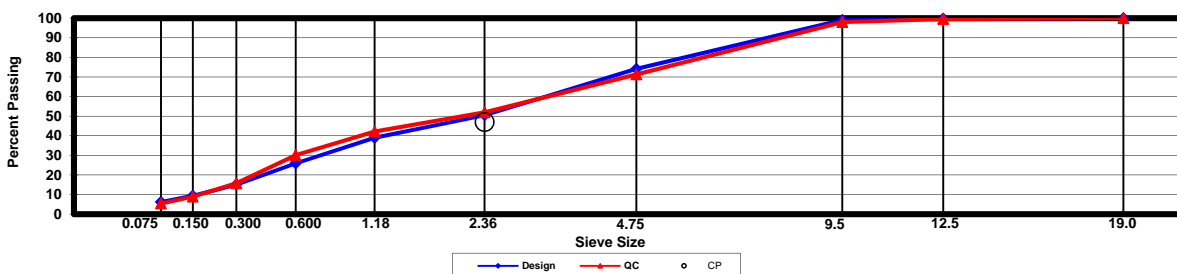
Construction Diary

Relevant Conditions for Construction

Completion Date: August 13, 2015
 24 Hour High Temperature (F): 94
 24 Hour Low Temperature (F): 65
 24 Hour Rainfall (in): 0.00
 Planned Sublot Lift Thickness (in): 1.5
 Paving Machine: Roadtec

Plant Configuration and Placement Details

| Component | % Setting |
|--|-----------|
| Binder Content (Plant Setting) | 5.8 |
| 89 Granite | 39.0 |
| Coarse Sand | 25.0 |
| M10 Granite | 16.0 |
| EAP -1/2 RAP | 20.0 |
| Evotherm P15 | 0.5 |
| As-Built Sublot Lift Thickness (in): | 1.7 |
| Total Thickness of All New Sublots (in): | 6.9 |
| Approx. Underlying HMA Thickness (in): | 5.2 |
| Type of Tack Coat Utilized: | NTSS-1HM |
| Undiluted Target Tack Rate (gal/sy): | 0.10 |
| Approx. Avg. Temperature at Plant (F): | 325 |
| Avg. Measured Mat Compaction: | 94.7% |



General Notes:

- References are by quadrant (E=East, N=North, W=West, S=South, L=Lee Rd 159, U=US-280), section #, and sublot (top=1).
- DGA, SMA, & OGFC refer to dense graded asphalt, stone matrix asphalt, & open-graded friction course, respectively.
- Production Gsb estimated using the actual production Gse and the difference between Gse and Gsb in the mix design.

Section and/or Sublot Specific Notes:

NA

Quadrant: S
Section: 8
Sublot: 2

Laboratory Diary

General Description of Mix and Materials

Design Method: Super
 Compactive Effort: 60 gyrations
 Binder Performance Grade: HiMA
 Modifier Type: Kraton
 Aggregate Type: Lms/Sand/Grn/RAP
 Design Gradation Type: DGA

Avg. Lab Properties of Plant Produced Mix

| Sieve Size | Target | QC |
|-------------------------------|--------|-------|
| 25 mm (1"): | 100 | 100 |
| 19 mm (3/4"): | 97 | 97 |
| 12.5 mm (1/2"): | 85 | 86 |
| 9.5 mm (3/8"): | 65 | 73 |
| 4.75 mm (#4): | 49 | 52 |
| 2.36 mm (#8): | 44 | 43 |
| 1.18 mm (#16): | 35 | 34 |
| 0.60 mm (#30): | 22 | 22 |
| 0.30 mm (#50): | 12 | 12 |
| 0.15 mm (#100): | 7 | 8 |
| 0.075 mm (#200): | 4.8 | 4.9 |
| Binder Content (Pb): | 4.6 | 4.7 |
| Eff. Binder Content (Pbe): | 4.1 | 4.2 |
| Dust-to-Eff. Binder Ratio: | 1.2 | 1.2 |
| RAP Binder Replacement (%): | 20.0 | 17.3 |
| RAS Binder Replacement (%): | 0.0 | 0.0 |
| Total Binder Replacement (%): | 20.0 | 17.3 |
| Rice Gravity (Gmm): | 2.562 | 2.541 |
| Bulk Gravity (Gmb): | 2.460 | 2.465 |
| Air Voids (Va): | 4.0 | 3.0 |
| Agg. Bulk Gravity (Gsb): | 2.725 | 2.70 |
| VMA: | 13.9 | 13 |
| VFA: | 71 | 77 |

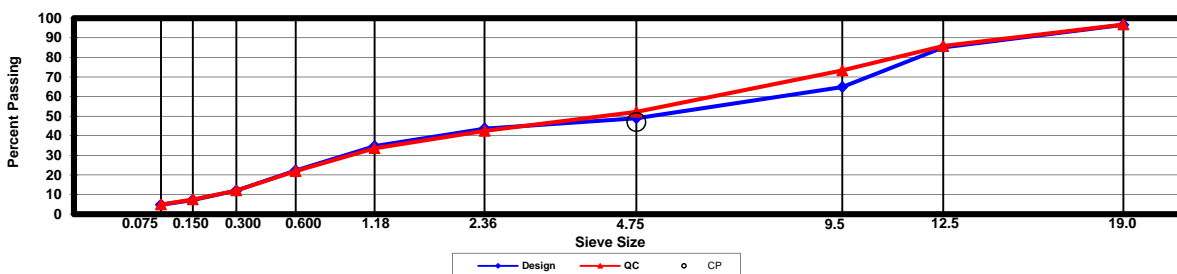
Construction Diary

Relevant Conditions for Construction

Completion Date: August 7, 2015
 24 Hour High Temperature (F): 90
 24 Hour Low Temperature (F): 75
 24 Hour Rainfall (in): 0.03
 Planned Subot Lift Thickness (in): 2.3
 Paving Machine: Blaw-Knox

Plant Configuration and Placement Details

| Component | % Setting |
|--|-----------|
| Binder Content (Plant Setting) | 4.7 |
| 78 Limestone | 32.0 |
| 57 Limestone | 17.0 |
| Coarse Sand | 23.0 |
| M10 Granite | 11.0 |
| EAP -1/2 RAP | 17.0 |
| Evotherm P15 | 0.5 |
| As-Built Sublot Lift Thickness (in): | 2.1 |
| Total Thickness of All New Sublots (in): | 6.9 |
| Approx. Underlying HMA Thickness (in): | 3.1 |
| Type of Tack Coat Utilized: | NTSS-1HM |
| Undiluted Target Tack Rate (gal/sy): | 0.08 |
| Approx. Avg. Temperature at Plant (F): | 340 |
| Avg. Measured Mat Compaction: | 95.5% |



General Notes:

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- Production Gsb estimated using the actual production Gse and the difference between Gse and Gsb in the mix design.

Section and/or Sublot Specific Notes:

NA

Quadrant: S
Section: 8
Sublot: 3

Laboratory Diary

General Description of Mix and Materials

Design Method: CR
 Compactive Effort: 30 gyrations
 Binder Performance Grade: 67-22
 Modifier Type: NA
 Aggregate Type: RAP
 Design Gradation Type: CR

Avg. Lab Properties of Plant Produced Mix

| Sieve Size | Target | QC |
|-------------------------------|--------|-------|
| 25 mm (1"): | 100 | 100 |
| 19 mm (3/4"): | 99 | 99 |
| 12.5 mm (1/2"): | 94 | 94 |
| 9.5 mm (3/8"): | 87 | 87 |
| 4.75 mm (#4): | 64 | 64 |
| 2.36 mm (#8): | 47 | 47 |
| 1.18 mm (#16): | 36 | 36 |
| 0.60 mm (#30): | 29 | 29 |
| 0.30 mm (#50): | 22 | 22 |
| 0.15 mm (#100): | 16 | 16 |
| 0.075 mm (#200): | 10.8 | 10.8 |
| | | |
| Binder Content (Pb): | 2.5 | 7.8 |
| Eff. Binder Content (Pbe): | NA | NA |
| Dust-to-Eff. Binder Ratio: | NA | NA |
| RAP Binder Replacement (%): | NA | NA |
| RAS Binder Replacement (%): | NA | NA |
| Total Binder Replacement (%): | 0.0 | 0.0 |
| | | |
| Rice Gravity (Gmm): | NA | NA |
| Bulk Gravity (Gmb): | 2.257 | 2.262 |
| Air Voids (Va): | NA | NA |
| Agg. Bulk Gravity (Gsb): | NA | NA |
| VMA: | NA | NA |
| VFA: | NA | NA |

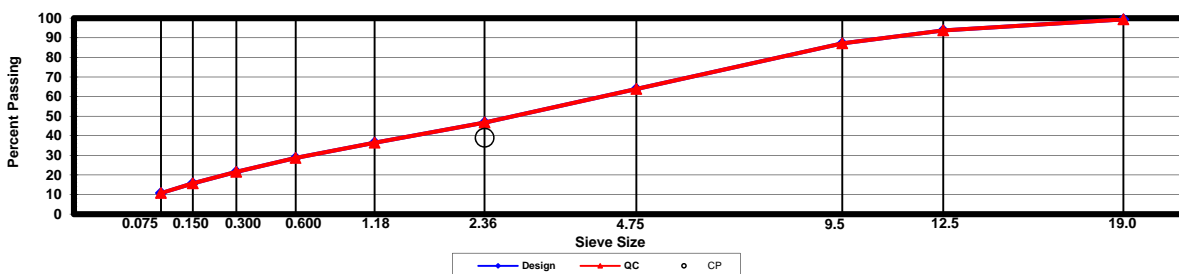
Construction Diary

Relevant Conditions for Construction

Completion Date: August 7, 2015
 24 Hour High Temperature (F): 90
 24 Hour Low Temperature (F): 75
 24 Hour Rainfall (in): 0.03
 Planned Sublot Lift Thickness (in): 3.3
 Paving Machine: Roadtec

Plant Configuration and Placement Details

| Component | % Setting |
|--|-----------|
| Binder Content (Plant Setting) | 2.5 |
| | |
| EAP -1/2 RAP | 100.0 |
| | |
| RAP Collar Dust Ring Compaction Water | 2.0 |
| | |
| Type I Portland Cement | 1.5 |
| | |
| As-Built Sublot Lift Thickness (in): | 3.1 |
| Total Thickness of All New Sublots (in): | 6.9 |
| Approx. Underlying HMA Thickness (in): | 0.0 |
| Type of Tack Coat Utilized: | NA |
| Undiluted Target Tack Rate (gal/sy): | NA |
| Approx. Avg. Temperature at Plant (F): | 95 |
| Avg. Measured Mat Compaction: | 96.1% |



General Notes:

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- Production Gsb estimated using the actual production Gse and the difference between Gse and Gsb in the mix design.

Section and/or Sublot Specific Notes:

This mix was produced in EAP's Astec Double Barrel plant with the burner off. No virgin aggregate was utilized. Half the RAP was run on the recycle belt and half was run through a virgin coarse aggregate bin. A dust control ring was used to add water to the RAP just prior to drum entry, and Portland cement was blown through the fiber port. .