

Quadrant: N
Section: 5
Sublot: 1

Laboratory Diary

General Description of Mix and Materials

Design Method: Super
 Compactive Effort: 80 gyrations
 Binder Performance Grade: 67-22
 Modifier Type: NA
 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	100
9.5 mm (3/8"):	99	99
4.75 mm (#4):	74	73
2.36 mm (#8):	51	54
1.18 mm (#16):	39	42
0.60 mm (#30):	26	28
0.30 mm (#50):	15	15
0.15 mm (#100):	9	9
0.075 mm (#200):	6.2	5.7
Binder Content (Pb):	5.2	5.1
Eff. Binder Content (Pbe):	4.5	4.4
Dust-to-Eff. Binder Ratio:	1.4	1.3
RAP Binder Replacement (%):	20.9	18.9
RAS Binder Replacement (%):	0.0	0.0
Total Binder Replacement (%):	20.9	18.9
Rice Gravity (Gmm):	2.493	2.478
Bulk Gravity (Gmb):	2.355	2.348
Air Voids (Va):	5.5	5.3
Agg. Bulk Gravity (Gsb):	2.654	2.63
VMA:	15.9	15
VFA:	65	66

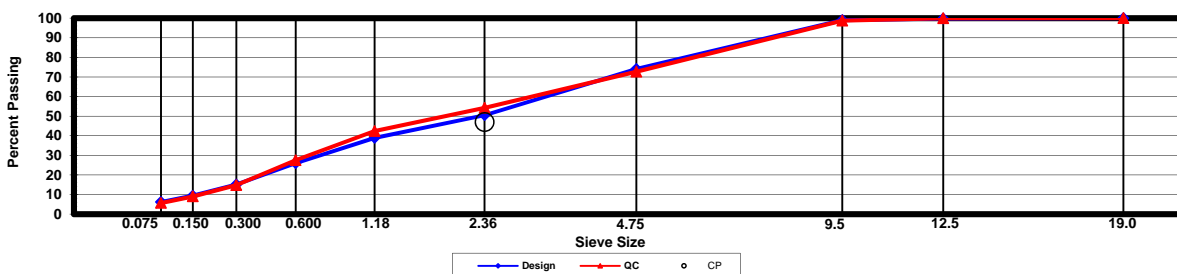
Construction Diary

Relevant Conditions for Construction

Completion Date: July 24, 2015
 24 Hour High Temperature (F): 89
 24 Hour Low Temperature (F): 73
 24 Hour Rainfall (in): 0.83
 Planned Sublot Lift Thickness (in): 1.5
 Paving Machine: Roadtec

Plant Configuration and Placement Details

Component	% Setting
Binder Content (Plant Setting)	5.1
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):	1.3
Total Thickness of All New Sublots (in):	6.1
Approx. Underlying HMA Thickness (in):	4.8
Type of Tack Coat Utilized:	NTSS-1HM
Undiluted Target Tack Rate (gal/sy):	0.10
Approx. Avg. Temperature at Plant (F):	320
Avg. Measured Mat Compaction:	90.3%



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: N
Section: 5
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	84
9.5 mm (3/8"):	65	73
4.75 mm (#4):	49	53
2.36 mm (#8):	44	43
1.18 mm (#16):	35	35
0.60 mm (#30):	22	24
0.30 mm (#50):	12	13
0.15 mm (#100):	7	8
0.075 mm (#200):	4.8	5.0
Binder Content (Pb):	4.6	4.5
Eff. Binder Content (Pbe):	4.1	4.0
Dust-to-Eff. Binder Ratio:	1.2	1.3
RAP Binder Replacement (%):	20.0	18.3
RAS Binder Replacement (%):	0.0	0.0
Total Binder Replacement (%):	20.0	18.3
Rice Gravity (Gmm):	2.562	2.568
Bulk Gravity (Gmb):	2.460	2.452
Air Voids (Va):	4.0	4.5
Agg. Bulk Gravity (Gsb):	2.725	2.72
VMA:	13.9	14
VFA:	71	68

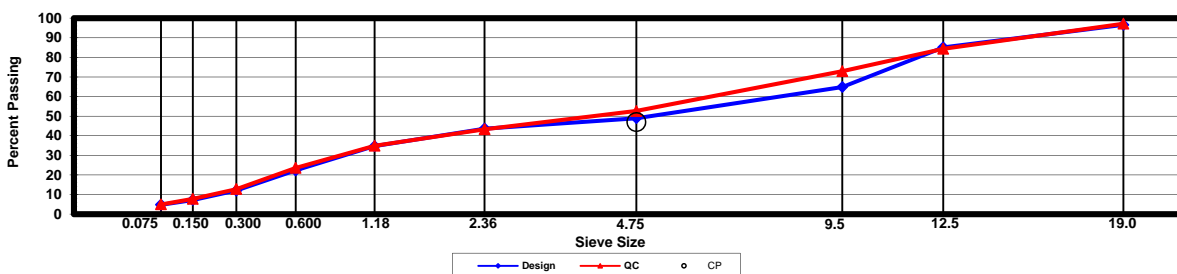
Construction Diary

Relevant Conditions for Construction

Completion Date: July 20, 2015
 24 Hour High Temperature (F): 98
 24 Hour Low Temperature (F): 73
 24 Hour Rainfall (in): 0.00
 Planned Sublot Lift Thickness (in): 2.3
 Paving Machine: Roadtec

Plant Configuration and Placement Details

Component	% Setting
Binder Content (Plant Setting)	4.5
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):	2.7
Total Thickness of All New Sublots (in):	6.1
Approx. Underlying HMA Thickness (in):	2.1
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:	92.4%



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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: N
Section: 5
Sublot: 3

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	99
12.5 mm (1/2"):	85	86
9.5 mm (3/8"):	65	73
4.75 mm (#4):	49	51
2.36 mm (#8):	44	42
1.18 mm (#16):	35	34
0.60 mm (#30):	22	24
0.30 mm (#50):	12	13
0.15 mm (#100):	7	8
0.075 mm (#200):	4.8	4.7
Binder Content (Pb):	4.6	4.5
Eff. Binder Content (Pbe):	4.1	3.9
Dust-to-Eff. Binder Ratio:	1.2	1.2
RAP Binder Replacement (%):	20.0	18.3
RAS Binder Replacement (%):	0.0	0.0
Total Binder Replacement (%):	20.0	18.3
Rice Gravity (Gmm):	2.562	2.544
Bulk Gravity (Gmb):	2.460	2.442
Air Voids (Va):	4.0	4.0
Agg. Bulk Gravity (Gsb):	2.725	2.69
VMA:	13.9	13
VFA:	71	70

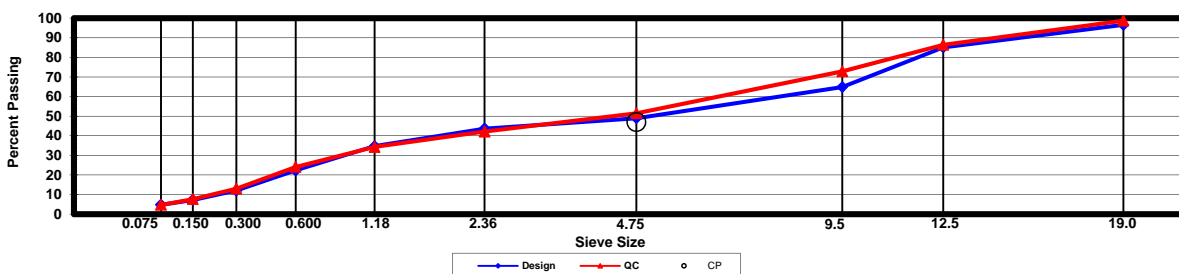
Construction Diary

Relevant Conditions for Construction

Completion Date: July 17, 2015
 24 Hour High Temperature (F): 96
 24 Hour Low Temperature (F): 71
 24 Hour Rainfall (in): 0.00
 Planned Subot Lift Thickness (in): 2.3
 Paving Machine: Roadtec

Plant Configuration and Placement Details

Component	% Setting
Binder Content (Plant Setting)	4.5
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):	6.1
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):	345
Avg. Measured Mat Compaction:	93.4%



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