

**Quadrant:** N  
**Section:** 2  
**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	98
4.75 mm (#4):	74	70
2.36 mm (#8):	51	54
1.18 mm (#16):	39	43
0.60 mm (#30):	26	28
0.30 mm (#50):	15	15
0.15 mm (#100):	9	9
0.075 mm (#200):	6.2	5.6
Binder Content (Pb):	5.7	5.4
Eff. Binder Content (Pbe):	5.0	4.7
Dust-to-Eff. Binder Ratio:	1.2	1.2
RAP Binder Replacement (%):	19.1	17.9
RAS Binder Replacement (%):	0.0	0.0
Total Binder Replacement (%):	19.1	17.9
Rice Gravity (Gmm):	2.474	2.468
Bulk Gravity (Gmb):	2.375	2.372
Air Voids (Va):	4.0	3.9
Agg. Bulk Gravity (Gsb):	2.654	2.63
VMA:	15.6	15
VFA:	75	73

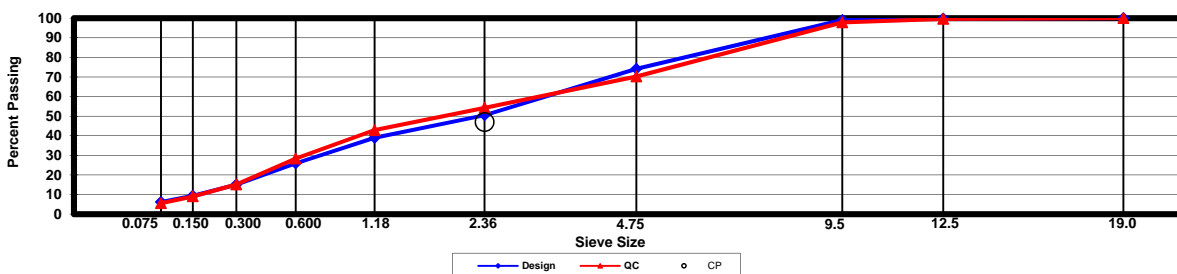
**Construction Diary**

Relevant Conditions for Construction

Completion Date: August 5, 2015  
 24 Hour High Temperature (F): 97  
 24 Hour Low Temperature (F): 71  
 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):	1.5
Total Thickness of All New Sublots (in):	6.7
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):	320
Avg. Measured Mat Compaction:	96.1%



**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:** 2  
**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	98
12.5 mm (1/2"):	85	86
9.5 mm (3/8"):	65	74
4.75 mm (#4):	49	54
2.36 mm (#8):	44	44
1.18 mm (#16):	35	36
0.60 mm (#30):	22	26
0.30 mm (#50):	12	14
0.15 mm (#100):	7	8
0.075 mm (#200):	4.8	5.0
Binder Content (Pb):	4.6	4.6
Eff. Binder Content (Pbe):	4.1	4.1
Dust-to-Eff. Binder Ratio:	1.2	1.2
RAP Binder Replacement (%):	20.0	17.9
RAS Binder Replacement (%):	0.0	0.0
Total Binder Replacement (%):	20.0	17.9
Rice Gravity (Gmm):	2.562	2.553
Bulk Gravity (Gmb):	2.460	2.455
Air Voids (Va):	4.0	3.8
Agg. Bulk Gravity (Gsb):	2.725	2.71
VMA:	13.9	14
VFA:	71	72

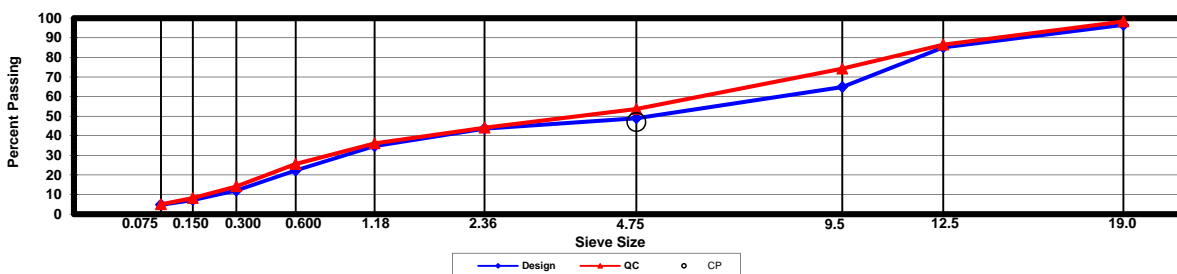
**Construction Diary**

Relevant Conditions for Construction

Completion Date: August 4, 2015  
 24 Hour High Temperature (F): 102  
 24 Hour Low Temperature (F): 70  
 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)	4.7
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):	2.6
Total Thickness of All New Sublots (in):	6.7
Approx. Underlying HMA Thickness (in):	2.6
Type of Tack Coat Utilized:	NTSS-1HM
Undiluted Target Tack Rate (gal/sy):	0.08
Approx. Avg. Temperature at Plant (F):	320
Avg. Measured Mat Compaction:	94.5%



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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:** 2  
**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	97
12.5 mm (1/2"):	85	87
9.5 mm (3/8"):	65	78
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	5.1
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	18.1
RAS Binder Replacement (%):	0.0	0.0
Total Binder Replacement (%):	20.0	18.1
Rice Gravity (Gmm):	2.562	2.555
Bulk Gravity (Gmb):	2.460	2.456
Air Voids (Va):	4.0	3.9
Agg. Bulk Gravity (Gsb):	2.725	2.71
VMA:	13.9	13
VFA:	71	71

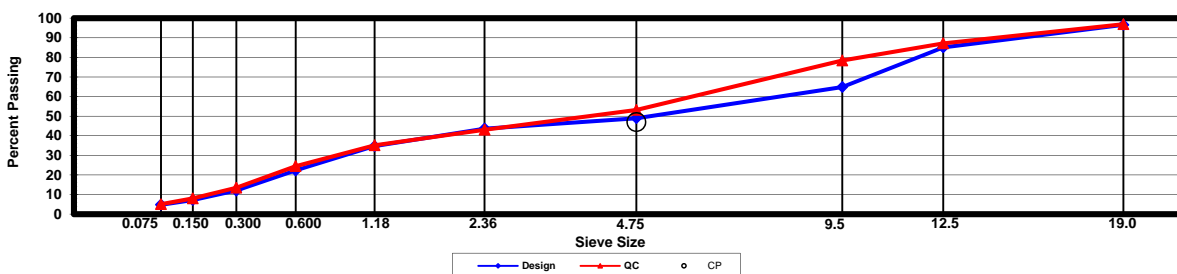
**Construction Diary**

Relevant Conditions for Construction

Completion Date: August 3, 2015  
 24 Hour High Temperature (F): 98  
 24 Hour Low Temperature (F): 71  
 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)	4.7
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):	2.6
Total Thickness of All New Sublots (in):	6.7
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):	320
Avg. Measured Mat Compaction:	94.3%



**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