

Quadrant: N
Section: 7
Sublot: 1

Laboratory Diary

General Description of Mix and Materials

Design Method: Super
 Compactive Effort: 80 gyrations
 Binder Performance Grade: 94-xx
 Modifier Type: 7.5% SBS
 Aggregate Type: Grn/Sand/Lms
 Design Gradation Type: Fine

Avg. Lab Properties of Plant Produced Mix

Sieve Size	Design	QC
25 mm (1"):	100	100
19 mm (3/4"):	100	100
12.5 mm (1/2"):	100	100
9.5 mm (3/8"):	100	100
4.75 mm (#4):	77	82
2.36 mm (#8):	60	63
1.18 mm (#16):	45	48
0.60 mm (#30):	31	32
0.30 mm (#50):	16	17
0.15 mm (#100):	9	10
0.075 mm (#200):	5.7	6.6
Binder Content (Pb):	5.9	6.3
Eff. Binder Content (Pbe):	5.3	5.7
Dust-to-Binder Ratio:	1.1	1.2
Rice Gravity (Gmm):	2.474	2.468
Avg. Bulk Gravity (Gmb):	2.375	2.367
Avg Air Voids (Va):	4.0	4.1
Agg. Bulk Gravity (Gsb):	2.667	2.678
Avg VMA:	16.2	17.2
Avg. VFA:	75	76

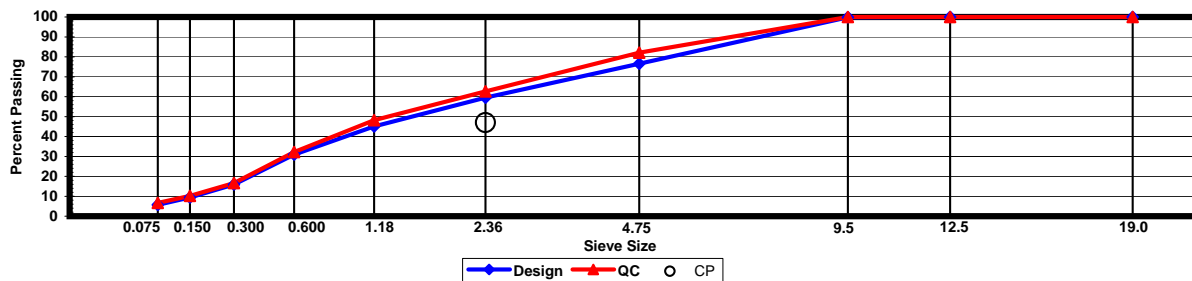
Construction Diary

Relevant Conditions for Construction

Completion Date: July 22, 2009
 24 Hour High Temperature (F): 88
 24 Hour Low Temperature (F): 60
 24 Hour Rainfall (in): 0.00
 Planned Sublot Lift Thickness (in): 1.3
 Paving Machine: Roadtec

Plant Configuration and Placement Details

Component	% Setting
Asphalt Content (Plant Setting)	6.2
89 Columbus Granite	36.0
8910 Opelika Limestone Screenings	23.0
M10 Columbus Granite	13.0
Shorter Coarse Sand	28.0
As-Built Sublot Lift Thickness (in):	1.1
Total Thickness of All 2009 Sublots (in):	5.8
Approx. Underlying HMA Thickness (in):	0.0
Type of Tack Coat Utilized:	NTSS-1HM
Target Tack Application Rate (gal/sy):	0.07
Approx. Avg. Temperature at Plant (F):	345
Avg. Measured Mat Compaction:	93.7%



General Notes:

- Mixes are referenced by quadrant (E=East, N=North, W=West, and S=South), section # (sequential) and subplot (top=1);
- The total HMA thickness of all structural study sections (N1-N11 and S8-S12) ranges from 5-3/4 to 14 inches by design;
- All non-structural sections are supported by a uniform perpetual foundation in order to study surface mix performance;
- SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively; and
- All liquid asphalt purchased for use in Track reconstruction contained LOF 6500 antistripping additive at a rate of 0.5 percent

Quadrant: N
Section: 7
Sublot: 2

Laboratory Diary

General Description of Mix and Materials

Design Method: Kraton
 Compactive Effort: 80 gyrations
 Binder Performance Grade: 94-xx
 Modifier Type: 7.5% SBS
 Aggregate Type: Lms/Sand/Grn
 Design Gradation Type: Fine

Avg. Lab Properties of Plant Produced Mix

Sieve Size	Design	QC
25 mm (1"):	100	98
19 mm (3/4"):	93	92
12.5 mm (1/2"):	82	82
9.5 mm (3/8"):	71	73
4.75 mm (#4):	52	56
2.36 mm (#8):	45	46
1.18 mm (#16):	35	37
0.60 mm (#30):	24	25
0.30 mm (#50):	12	13
0.15 mm (#100):	7	8
0.075 mm (#200):	3.9	5.2
Binder Content (Pb):	4.6	4.6
Eff. Binder Content (Pbe):	4.2	4.2
Dust-to-Binder Ratio:	0.9	1.2
Rice Gravity (Gmm):	2.570	2.549
Avg. Bulk Gravity (Gmb):	2.467	2.423
Avg Air Voids (Va):	4.0	4.9
Agg. Bulk Gravity (Gsb):	2.737	2.712
Avg VMA:	14.0	14.8
Avg. VFA:	72	67

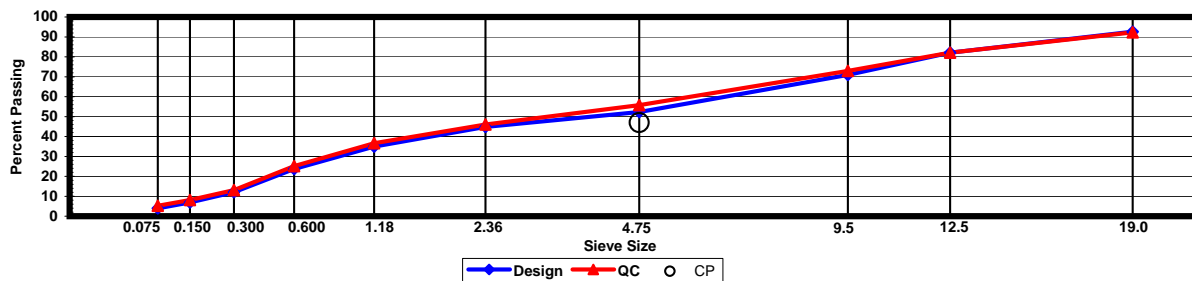
Construction Diary

Relevant Conditions for Construction

Completion Date: July 21, 2009
 24 Hour High Temperature (F): 88
 24 Hour Low Temperature (F): 60
 24 Hour Rainfall (in): 0.00
 Planned Sublot Lift Thickness (in): 2.3
 Paving Machine: Roadtec

Plant Configuration and Placement Details

Component	% Setting
Asphalt Content (Plant Setting)	4.8
78 Opelika Limestone	30.0
57 Opelika Limestone	18.0
M10 Columbus Granite	25.0
Shorter Coarse Sand	27.0
As-Built Sublot Lift Thickness (in):	2.1
Total Thickness of All 2009 Sublots (in):	5.8
Approx. Underlying HMA Thickness (in):	0.0
Type of Tack Coat Utilized:	NTSS-1HM
Target Tack Application Rate (gal/sy):	0.07
Approx. Avg. Temperature at Plant (F):	345
Avg. Measured Mat Compaction:	92.7%



General Notes:

- 1) Mixes are referenced by quadrant (E=East, N=North, W=West, and S=South), section # (sequential) and subplot (top=1);
- 2) The total HMA thickness of all structural study sections (N1-N11 and S8-S12) ranges from 5-3/4 to 14 inches by design;
- 3) All non-structural sections are supported by a uniform perpetual foundation in order to study surface mix performance;
- 4) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively; and
- 5) All liquid asphalt purchased for use in Track reconstruction contained LOF 6500 antistrip additive at a rate of 0.5 percent

Quadrant: N
Section: 7
Sublot: 3

Laboratory Diary

General Description of Mix and Materials

Design Method: Kraton
 Compactive Effort: 80 gyrations
 Binder Performance Grade: 94-xx
 Modifier Type: 7.5% SBS
 Aggregate Type: Lms/Sand/Grn
 Design Gradation Type: Fine

Avg. Lab Properties of Plant Produced Mix

Sieve Size	Design	QC
25 mm (1"):	100	98
19 mm (3/4"):	93	91
12.5 mm (1/2"):	82	81
9.5 mm (3/8"):	71	72
4.75 mm (#4):	52	55
2.36 mm (#8):	45	45
1.18 mm (#16):	35	36
0.60 mm (#30):	24	25
0.30 mm (#50):	12	12
0.15 mm (#100):	7	7
0.075 mm (#200):	3.9	4.6
Binder Content (Pb):	4.6	4.6
Eff. Binder Content (Pbe):	4.2	4.2
Dust-to-Binder Ratio:	0.9	1.1
Rice Gravity (Gmm):	2.570	2.545
Avg. Bulk Gravity (Gmb):	2.467	2.427
Avg Air Voids (Va):	4.0	4.6
Agg. Bulk Gravity (Gsb):	2.737	2.707
Avg VMA:	14.0	14.5
Avg. VFA:	72	68

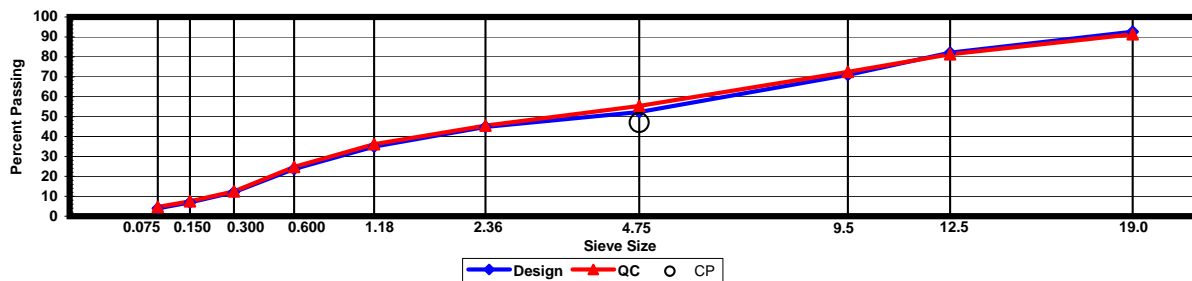
Construction Diary

Relevant Conditions for Construction

Completion Date: July 20, 2009
 24 Hour High Temperature (F): 85
 24 Hour Low Temperature (F): 60
 24 Hour Rainfall (in): 0.00
 Planned Sublot Lift Thickness (in): 2.3
 Paving Machine: Roadtec

Plant Configuration and Placement Details

Component	% Setting
Asphalt Content (Plant Setting)	4.8
78 Opelika Limestone	30.0
57 Opelika Limestone	18.0
M10 Columbus Granite	25.0
Shorter Coarse Sand	27.0
As-Built Sublot Lift Thickness (in):	2.5
Total Thickness of All 2009 Sublots (in):	5.8
Approx. Underlying HMA Thickness (in):	0.0
Type of Tack Coat Utilized:	NA
Target Tack Application Rate (gal/sy):	NA
Approx. Avg. Temperature at Plant (F):	340
Avg. Measured Mat Compaction:	92.8%



General Notes:

- Mixes are referenced by quadrant (E=East, N=North, W=West, and S=South), section # (sequential) and subplot (top=1);
- The total HMA thickness of all structural study sections (N1-N11 and S8-S12) ranges from 5-3/4 to 14 inches by design;
- All non-structural sections are supported by a uniform perpetual foundation in order to study surface mix performance;
- SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively; and
- All liquid asphalt purchased for use in Track reconstruction contained LOF 6500 antistripping additive at a rate of 0.5 percent