3/9/2010

Quadrant: S
Section: 11
Sublot: 1

Laboratory Diary

General Desccription of Mix and Materials

Design Method:	WMA
Compactive Effort:	80 gyrations
Binder Performance Grade:	76-22+
Modifier Type:	Additive
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):	78	83
2.36 mm (#8):	60	61
1.18 mm (#16):	46	47
0.60 mm (#30):	31	31
0.30 mm (#50):	16	16
0.15 mm (#100):	10	9
0.075 mm (#200):	5.8	6.1
Binder Content (Pb):	5.8	6.4
Eff. Binder Content (Pbe):	5.1	5.7
Dust-to-Binder Ratio:	1.1	1.1
Rice Gravity (Gmm):	2.483	2.464
Avg. Bulk Gravity (Gmb):	2.384	2.380
Avg Air Voids (Va):	4.0	3.4
Agg. Bulk Gravity (Gsb):	2.667	2.675
Avg VMA:	15.8	16.7
Avg. VFA:	75	80

Construction Diary

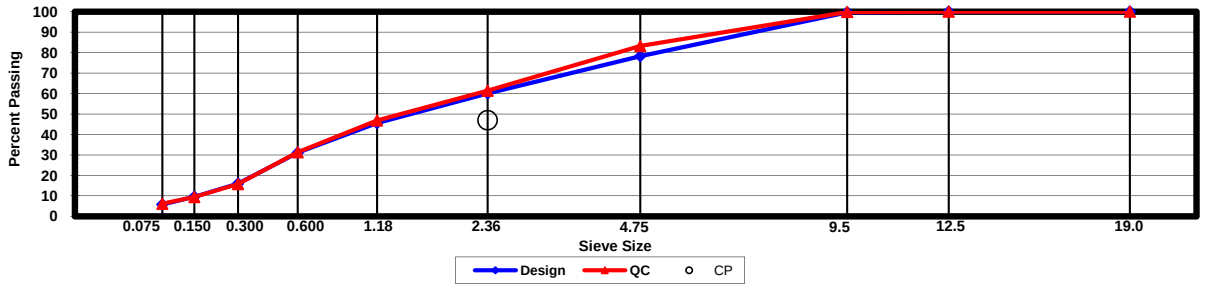
Relevant Conditions for Construction

Completion Date:	July 16, 2009
24 Hour High Temperature (F):	92
24 Hour Low Temperature (F):	74
24 Hour Rainfall (in):	0.00
Planned Subot Lift Thickness (in):	1.3
Paving Machine:	Roadtec

Plant Configuration and Placement Details

Component	% Setting
Asphalt Content (Plant Setting)	6.5
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):	1.5
Total Thickness of All 2009 Sublots (in):	6.9
Approx. Underlying HMA Thickness (in):	0.0
Type of Tack Coat Utilized:	NTSS-1HM
Target Tack Application Rate (gal/sy):	0.04
Approx. Avg. Temperature at Plant (F):	250
Avg. Measured Mat Compaction:	93.7%



General Notes:

1) Mixes are referenced by quadrant (E=East, N=North, W=West, and S=South), section # (sequential) and sublot (top=1);
3) 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 supprted 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

3/9/2010

Quadrant: S
Section: 11
Sublot: 2

Laboratory Diary

General Desccription of Mix and Materials

Design Method:	WMA
Compactive Effort:	80 gyrations
Binder Performance Grade:	76-22+
Modifier Type:	Additive
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	94
12.5 mm (1/2"):	82	87
9.5 mm (3/8"):	71	80
4.75 mm (#4):	52	60
2.36 mm (#8):	45	48
1.18 mm (#16):	35	38
0.60 mm (#30):	24	25
0.30 mm (#50):	12	13
0.15 mm (#100):	7	8
0.075 mm (#200):	3.9	4.9
Binder Content (Pb):	4.7	4.6
Eff. Binder Content (Pbe):	4.1	4.0
Dust-to-Binder Ratio:	0.9	1.2
Rice Gravity (Gmm):	2.575	2.555
Avg. Bulk Gravity (Gmb):	2.472	2.429
Avg Air Voids (Va):	4.0	4.9
Agg. Bulk Gravity (Gsb):	2.737	2.709
Avg VMA:	13.9	14.5
Avg. VFA:	71	66

Construction Diary

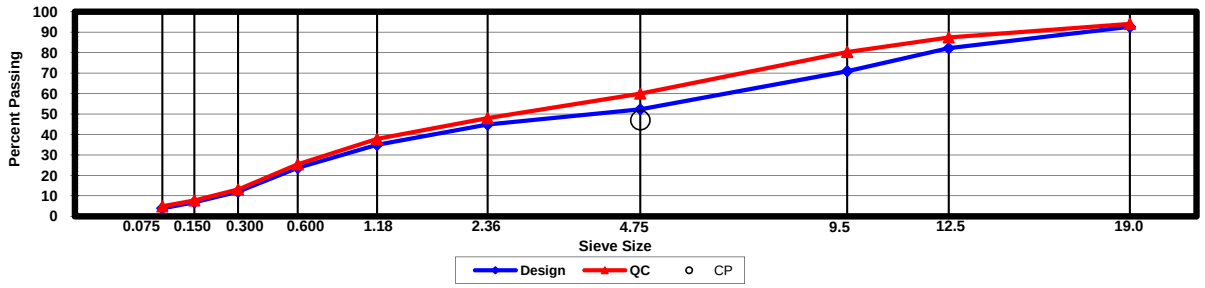
Relevant Conditions for Construction

Completion Date:	July 14, 2009
24 Hour High Temperature (F):	93
24 Hour Low Temperature (F):	72
24 Hour Rainfall (in):	0.00
Planned Subot Lift Thickness (in):	2.8
Paving Machine:	Roadtec

Plant Configuration and Placement Details

Component	% Setting
Asphalt Content (Plant Setting)	4.7
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):	2.8
Total Thickness of All 2009 Sublots (in):	6.9
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):	250
Avg. Measured Mat Compaction:	92.9%



General Notes:

1) Mixes are referenced by quadrant (E=East, N=North, W=West, and S=South), section # (sequential) and sublot (top=1);
3) 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 supprted 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

3/9/2010

Quadrant: S
Section: 11
Sublot: 3

Laboratory Diary

General Desccription of Mix and Materials

Design Method:	WMA
Compactive Effort:	80 gyrations
Binder Performance Grade:	67-22+
Modifier Type:	Additive
Aggregate Type:	Lms/Sand/Grn
Design Gradation Type:	Fine

Avg. Lab Properties of Plant Produced Mix

Sieve Size	Design	QC
25 mm (1"):	100	99
19 mm (3/4"):	93	95
12.5 mm (1/2"):	84	87
9.5 mm (3/8"):	73	80
4.75 mm (#4):	55	61
2.36 mm (#8):	47	50
1.18 mm (#16):	36	40
0.60 mm (#30):	25	28
0.30 mm (#50):	14	16
0.15 mm (#100):	8	9
0.075 mm (#200):	4.6	5.3
Binder Content (Pb):	4.6	5.0
Eff. Binder Content (Pbe):	4.1	4.5
Dust-to-Binder Ratio:	1.1	1.2
Rice Gravity (Gmm):	2.574	2.522
Avg. Bulk Gravity (Gmb):	2.471	2.447
Avg Air Voids (Va):	4.0	3.0
Agg. Bulk Gravity (Gsb):	2.738	2.693
Avg VMA:	13.9	13.7
Avg. VFA:	71	78

Construction Diary

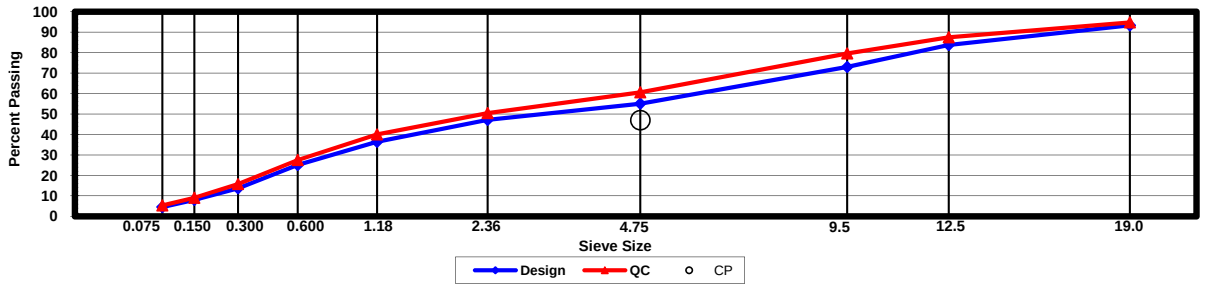
Relevant Conditions for Construction

Completion Date:	July 3, 2009
24 Hour High Temperature (F):	92
24 Hour Low Temperature (F):	69
24 Hour Rainfall (in):	0.00
Planned Subot Lift Thickness (in):	3.0
Paving Machine:	Roadtec

Plant Configuration and Placement Details

Component	% Setting
Asphalt Content (Plant Setting)	4.9
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):	2.6
Total Thickness of All 2009 Sublots (in):	6.9
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):	250
Avg. Measured Mat Compaction:	93.9%



General Notes:

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3) 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 supprted 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