

**Quadrant: N**  
**Section: 8**  
**Sublot: Surface**

**Laboratory Diary**

General Description of Mix and Materials

Design Method: SMA  
 Compactive Effort: 50 blows  
 Binder Performance Grade: 76-22  
 Modifier Type: SBS  
 Aggregate Type: Granite  
 Gradation Type: SMA

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>Design</u>	<u>QC:</u>
1":	100	100
3/4":	100	100
1/2":	100	100
3/8"	99	100
No. 4	53	49
No. 8	25	24
No. 16	19	20
No. 30	16	17
No. 50	14	14
No. 100	11	12
No. 200	9.0	9.2
Asphalt Content	6.1	6.2
Pill Bulk Gravity:		2.269
TMD (Rice ):		2.437
Avg Air Voids		6.9
Avg VMA:		21

**Construction Diary**

Relevant Conditions for Construction

Completion Date: Wednesday, July 30, 2003  
 24 Hour High Temperature (F): 86  
 24 Hour Low Temperature (F): 69  
 24 Hour Rainfall (in): 0  
 Lift type: Surface  
 Planned Mill / Lift Thickness (in): 1.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Asphalt Content (Plant Setting)	6.0
89 Columbus Granite	77.0
M10 Columbus Granite	17.0
Boral Flyash	6.0
Approximate Length (ft):	200
Survey Mill / Lift Thickness (in):	1.1
Type of Tack Coat Utilized:	PG67-22
Target Tack Application Rate (gal/sy):	0.03
Avg Temperature In Truck (F):	339
Avg Section Compaction:	93.1

**General Notes:**

- 1) Mixes are referenced by quadrant (E=East, N=North, W=West, and S=South), section number (sequential) and sublot;
- 2) Sections are listed in the order they appear on the Track beginning with E2 and continuing counterclockwise to E1;
- 3) The total research thickness of all rutting study sections ranges from 3/4 to 4 inches by design;
- 4) The total HMA thickness of all structural study sections (N1 through N8) ranges from 5 to 9 inches by design;
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through and below the restricted zone, respectively;
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

**Quadrant: N**  
**Section: 8**  
**Sublot: Upper Binder**

**Laboratory Diary**

General Description of Mix and Materials

Design Method: Superpave  
 Compactive Effort: 80 gyrations  
 Binder Performance Grade: 67-22  
 Modifier Type: NA  
 Aggregate Type: Lms/Grn/Snd  
 Gradation Type: ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>Design</u>	<u>QC:</u>
1":	100	100
3/4":	94	93
1/2":	84	82
3/8"	72	71
No. 4	53	52
No. 8	45	45
No. 16	36	39
No. 30	28	30
No. 50	15	16
No. 100	8	9
No. 200	5.0	5.7
Asphalt Content	4.5	4.6
Pill Bulk Gravity:		2.453
TMD (Rice ):		2.577
Avg Air Voids		4.8
Avg VMA:		15

**General Notes:**

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- 3) The total research thickness of all rutting study sections ranges from 3/4 to 4 inches by design;
- 4) The total HMA thickness of all structural study sections (N1 through N8) ranges from 5 to 9 inches by design;
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through and below the restricted zone, respectively;
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

**Construction Diary**

Relevant Conditions for Construction

Completion Date: Thursday, July 24, 2003  
 24 Hour High Temperature (F): 86  
 24 Hour Low Temperature (F): 62  
 24 Hour Rainfall (in): 0  
 Lift type: Upper Binder  
 Planned Mill / Lift Thickness (in): 2.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Asphalt Content (Plant Setting)	4.3
78 Opelika Limestone	33.0
57 Opelika Limestone	22.0
M10 Columbus Granite	25.0
Shorter Coarse Sand	20.0
Approximate Length (ft):	200
Survey Mill / Lift Thickness (in):	2.1
Type of Tack Coat Utilized:	PG67-22
Target Tack Application Rate (gal/sy):	0.03
Avg Temperature In Truck (F):	331
Avg Section Compaction:	93.0

**Quadrant: N**  
**Section: 8**  
**Sublot: Lower Binder**

**Laboratory Diary**

General Description of Mix and Materials

Design Method: Superpave  
 Compactive Effort: 80 gyrations  
 Binder Performance Grade: 67-22  
 Modifier Type: NA  
 Aggregate Type: Lms/Grn/Snd  
 Gradation Type: ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>Design</u>	<u>QC:</u>
1":	100	100
3/4":	94	96
1/2":	84	85
3/8"	72	74
No. 4	53	52
No. 8	45	43
No. 16	36	35
No. 30	28	24
No. 50	15	14
No. 100	8	9
No. 200	5.0	5.6
Asphalt Content	4.5	4.5
Pill Bulk Gravity:		2.494
TMD (Rice ):		2.561
Avg Air Voids		2.6
Avg VMA:		13

**Construction Diary**

Relevant Conditions for Construction

Completion Date: Tuesday, July 22, 2003  
 24 Hour High Temperature (F): 89  
 24 Hour Low Temperature (F): 69  
 24 Hour Rainfall (in): 0.12  
 Lift type: Lower Binder  
 Planned Mill / Lift Thickness (in): 2.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Asphalt Content (Plant Setting)	4.3
78 Opelika Limestone	33.0
57 Opelika Limestone	22.0
M10 Columbus Granite	25.0
Shorter Coarse Sand	20.0
Approximate Length (ft):	200
Survey Mill / Lift Thickness (in):	1.9
Type of Tack Coat Utilized:	PG67-22
Target Tack Application Rate (gal/sy):	0.03
Avg Temperature In Truck (F):	313
Avg Section Compaction:	93.0

**General Notes:**

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- 3) The total research thickness of all rutting study sections ranges from 3/4 to 4 inches by design;
- 4) The total HMA thickness of all structural study sections (N1 through N8) ranges from 5 to 9 inches by design;
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through and below the restricted zone, respectively;
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

**Quadrant: N**  
**Section: 8**  
**Sublot: Base**

**Laboratory Diary**

General Description of Mix and Materials

Design Method: Superpave  
 Compactive Effort: 80 gyra (rich)  
 Binder Performance Grade: 67-22  
 Modifier Type: NA  
 Aggregate Type: Lms/Grn/Snd  
 Gradation Type: ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>Design</u>	<u>QC:</u>
1":	100	100
3/4":	94	92
1/2":	84	83
3/8"	72	73
No. 4	53	54
No. 8	45	45
No. 16	36	37
No. 30	28	26
No. 50	15	14
No. 100	8	9
No. 200	5.0	5.5
Asphalt Content	5.0	5.2
Pill Bulk Gravity:		2.509
TMD (Rice ):		2.558
Avg Air Voids		1.9
Avg VMA:		14

**Construction Diary**

Relevant Conditions for Construction

Completion Date: Friday, July 18, 2003  
 24 Hour High Temperature (F): 89  
 24 Hour Low Temperature (F): 67  
 24 Hour Rainfall (in): 0  
 Lift type: Base  
 Planned Mill / Lift Thickness (in): 2.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Asphalt Content (Plant Setting)	5.0
78 Opelika Limestone	33.0
57 Opelika Limestone	22.0
M10 Columbus Granite	25.0
Shorter Coarse Sand	20.0
Approximate Length (ft):	200
Survey Mill / Lift Thickness (in):	1.9
Type of Tack Coat Utilized:	PG67-22
Target Tack Application Rate (gal/sy):	0.03
Avg Temperature In Truck (F):	328
Avg Section Compaction:	93.3

**General Notes:**

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- 3) The total research thickness of all rutting study sections ranges from 3/4 to 4 inches by design;
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- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through and below the restricted zone, respectively;
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.