

**Quadrant: S**  
**Section: 1**  
**Sublot: Surface**

**Laboratory Diary**

**Construction Diary**

General Description of Mix and Materials

Relevant Conditions for Construction

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

Completion Date: Wednesday, August 20, 2003  
 24 Hour High Temperature (F): 91  
 24 Hour Low Temperature (F): 68  
 24 Hour Rainfall (in): 0.11  
 Lift type: Surface  
 Planned Mill / Lift Thickness (in): 1.8

Avg. Lab Properties of Plant Produced Mix

Plant Configuration and Placement Details

<u>Sieve Size:</u>	<u>Design</u>	<u>QC:</u>
1":	100	100
3/4":	100	99
1/2":	95	92
3/8"	70	74
No. 4	28	33
No. 8	22	25
No. 16		24
No. 30	17	22
No. 50		19
No. 100	14	16
No. 200	12.0	13.0
Asphalt Content	4.9	5.1
Pill Bulk Gravity:		2.394
TMD (Rice ):		2.444
Avg Air Voids		2.0
Avg VMA:		16

<u>Component:</u>	<u>% Setting:</u>
Asphalt Content (Plant Setting)	5.2
780(1/2) Liberty Granite	70.0
6M Liberty Granite	12.0
Liberty Regular Screenings	8.0
Boral Flyash	9.0
Hydrated Lime	1.0
Approximate Length (ft):	200
Survey Mill / Lift Thickness (in):	1.7
Type of Tack Coat Utilized:	PG67-22
Target Tack Application Rate (gal/sy):	0.07
Avg Temperature In Truck (F):	345
Avg Section Compaction:	95.6

**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: S**  
**Section: 1**  
**Sublot: Binder**

**Laboratory Diary**

General Description of Mix and Materials

Design Method: Superpave  
 Compactive Effort: 100 gyrations  
 Binder Performance Grade: 67-22  
 Modifier Type: NA  
 Aggregate Type: Granite  
 Gradation Type: TRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>Design</u>	<u>QC:</u>
1":	100	100
3/4":	99	100
1/2":	76	81
3/8"	64	68
No. 4	39	43
No. 8	25	31
No. 16	19	25
No. 30	15	21
No. 50	9	15
No. 100	5	10
No. 200	3.0	5.9
Asphalt Content	4.3	4.9
Pill Bulk Gravity:		2.446
TMD (Rice ):		2.491
Avg Air Voids		1.8
Avg VMA:		12

**Construction Diary**

Relevant Conditions for Construction

Completion Date: Monday, August 18, 2003  
 24 Hour High Temperature (F): 89  
 24 Hour Low Temperature (F): 71  
 24 Hour Rainfall (in): 0.01  
 Lift type: Binder  
 Planned Mill / Lift Thickness (in): 1.8

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Asphalt Content (Plant Setting)	4.6
6M Liberty Granite	35.6
789 Liberty Granite	44.6
Liberty Manufactured Sand	10.9
Liberty Regular Screenings	7.9
Hydrated Lime	1.0
Approximate Length (ft):	200
Survey Mill / Lift Thickness (in):	1.6
Type of Tack Coat Utilized:	PG67-22
Target Tack Application Rate (gal/sy):	0.07
Avg Temperature In Truck (F):	325
Avg Section Compaction:	95.7

**General Notes:**

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- 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.