

Section E2

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:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	96
3/8"	74
No. 4	41
No. 8	29
No. 16	22
No. 30	18
No. 50	12
No. 100	7
No. 200	4.1

Asphalt Binder Content:	4.7%
Compacted Pill Bulk Gravity:	2.434
Theoretical Maximum Gravity:	2.505
Computed Air Voids:	2.8%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Tuesday, April 11, 2000
24 Hour High Temperature (F):	76
24 Hour Low Temperature (F):	50
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.8%
Granite 7	48.0%
Granite 89	17.0%
Granite M10	20.0%
Granite W10	15.0%

Approximate Length (ft):	213
Surveyed Thickness of Section (in):	4.2
Std Dev of Section Thickness (in):	0.2
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	297
Average Section Compaction:	94.7%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section E3

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBR
Aggregate Type:	Granite
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	94
3/8"	73
No. 4	41
No. 8	29
No. 16	23
No. 30	18
No. 50	12
No. 100	7
No. 200	4.2

Asphalt Binder Content:	4.8%
Compacted Pill Bulk Gravity:	2.419
Theoretical Maximum Gravity:	2.519
Computed Air Voids:	4.0%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Tuesday, April 11, 2000
24 Hour High Temperature (F):	76
24 Hour Low Temperature (F):	50
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.7%
Granite 7	48.0%
Granite 89	19.0%
Granite M10	18.0%
Granite W10	15.0%

Approximate Length (ft):	189
Surveyed Thickness of Section (in):	4.1
Std Dev of Section Thickness (in):	0.3
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	325
Average Section Compaction:	93.5%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section E4

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Granite
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	95
3/8"	75
No. 4	42
No. 8	29
No. 16	23
No. 30	18
No. 50	13
No. 100	8
No. 200	4.6

Asphalt Binder Content:	4.7%
Compacted Pill Bulk Gravity:	2.416
Theoretical Maximum Gravity:	2.512
Computed Air Voids:	3.8%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Wednesday, April 12, 2000
24 Hour High Temperature (F):	75
24 Hour Low Temperature (F):	51
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.7%
Granite 7	48.0%
Granite 89	19.0%
Granite M10	18.0%
Granite W10	15.0%

Approximate Length (ft):	204
Surveyed Thickness of Section (in):	4.1
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	321
Average Section Compaction:	93.8%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section E5

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Granite
Gradation Type:	TRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	98
3/8"	83
No. 4	54
No. 8	40
No. 16	30
No. 30	24
No. 50	16
No. 100	9
No. 200	5.1

Asphalt Binder Content:	5.1%
Compacted Pill Bulk Gravity:	2.407
Theoretical Maximum Gravity:	2.500
Computed Air Voids:	3.7%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, April 13, 2000
24 Hour High Temperature (F):	75
24 Hour Low Temperature (F):	51
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.0%
Granite 7	33.0%
Granite 89	23.0%
Granite M10	24.0%
Granite W10	20.0%

Approximate Length (ft):	201
Surveyed Thickness of Section (in):	4.2
Std Dev of Section Thickness (in):	0.2
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	317
Average Section Compaction:	92.7%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section E6

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>% Passing:</u>
1"	100
3/4"	100
1/2"	96
3/8"	81
No. 4	52
No. 8	37
No. 16	28
No. 30	22
No. 50	15
No. 100	8
No. 200	4.3

Asphalt Binder Content:	5.0%
Compacted Pill Bulk Gravity:	2.411
Theoretical Maximum Gravity:	2.510
Computed Air Voids:	3.9%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, April 13, 2000
24 Hour High Temperature (F):	75
24 Hour Low Temperature (F):	51
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.0%
Granite 7	33.0%
Granite 89	23.0%
Granite M10	24.0%
Granite W10	20.0%

Approximate Length (ft):	211
Surveyed Thickness of Section (in):	4.2
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	299
Average Section Compaction:	92.9%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section E7

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBR
Aggregate Type:	Granite
Gradation Type:	TRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	97
3/8"	83
No. 4	53
No. 8	38
No. 16	29
No. 30	22
No. 50	16
No. 100	9
No. 200	5.2

Asphalt Binder Content:	4.8%
Compacted Pill Bulk Gravity:	2.413
Theoretical Maximum Gravity:	2.504
Computed Air Voids:	3.6%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Monday, April 17, 2000
24 Hour High Temperature (F):	75
24 Hour Low Temperature (F):	51
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.0%
Granite 7	33.0%
Granite 89	23.0%
Granite M10	24.0%
Granite W10	20.0%

Approximate Length (ft):	193
Surveyed Thickness of Section (in):	4.2
Std Dev of Section Thickness (in):	0.2
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	320
Average Section Compaction:	93.2%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section E8

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:	ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	98
3/8"	86
No. 4	66
No. 8	51
No. 16	38
No. 30	28
No. 50	18
No. 100	10
No. 200	5.2

Asphalt Binder Content:	5.6%
Compacted Pill Bulk Gravity:	2.372
Theoretical Maximum Gravity:	2.477
Computed Air Voids:	4.2%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Tuesday, April 18, 2000
24 Hour High Temperature (F):	85
24 Hour Low Temperature (F):	50
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.7%
Granite 7	30.0%
Granite 89	10.0%
Granite M10	24.0%
Granite W10	36.0%

Approximate Length (ft):	208
Surveyed Thickness of Section (in):	4.2
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	290
Average Section Compaction:	92.7%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section E9

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Granite
Gradation Type:	ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	97
3/8"	85
No. 4	64
No. 8	49
No. 16	36
No. 30	27
No. 50	18
No. 100	10
No. 200	5.2

Asphalt Binder Content:	5.4%
Compacted Pill Bulk Gravity:	2.371
Theoretical Maximum Gravity:	2.480
Computed Air Voids:	4.4%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Tuesday, April 18, 2000
24 Hour High Temperature (F):	85
24 Hour Low Temperature (F):	50
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.7%
Granite 7	30.0%
Granite 89	10.0%
Granite M10	24.0%
Granite W10	36.0%

Approximate Length (ft):	198
Surveyed Thickness of Section (in):	4.1
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	315
Average Section Compaction:	92.9%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section E10

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBR
Aggregate Type:	Granite
Gradation Type:	ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	97
3/8"	87
No. 4	67
No. 8	51
No. 16	38
No. 30	29
No. 50	19
No. 100	10
No. 200	5.6

Asphalt Binder Content:	5.8%
Compacted Pill Bulk Gravity:	2.380
Theoretical Maximum Gravity:	2.467
Computed Air Voids:	3.5%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, April 20, 2000
24 Hour High Temperature (F):	85
24 Hour Low Temperature (F):	54
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.7%
Granite 7	30.0%
Granite 89	10.0%
Granite M10	24.0%
Granite W10	36.0%

Approximate Length (ft):	99
Surveyed Thickness of Section (in):	4.4
Std Dev of Section Thickness (in):	0.3
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	326
Average Section Compaction:	93.0%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N1

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Lms/Slag
Gradation Type:	ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	100
3/8"	92
No. 4	69
No. 8	52
No. 16	33
No. 30	22
No. 50	15
No. 100	10
No. 200	6.7

Asphalt Binder Content:	7.4%
Compacted Pill Bulk Gravity:	2.306
Theoretical Maximum Gravity:	2.365
Computed Air Voids:	2.5%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Tuesday, April 25, 2000
24 Hour High Temperature (F):	75
24 Hour Low Temperature (F):	55
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	7.2%
Slag 78	32.0%
Slag 8910	28.0%
Limestone Manufactured Sand	40.0%

Approximate Length (ft):	201
Surveyed Thickness of Section (in):	3.9
Std Dev of Section Thickness (in):	0.3
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	306
Average Section Compaction:	95.1%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N2

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Lms/Slag
Gradation Type:	ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	99
3/8"	90
No. 4	66
No. 8	50
No. 16	33
No. 30	22
No. 50	16
No. 100	11
No. 200	7.6

Asphalt Binder Content:	7.8%
Compacted Pill Bulk Gravity:	2.300
Theoretical Maximum Gravity:	2.352
Computed Air Voids:	2.2%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Tuesday, April 25, 2000
24 Hour High Temperature (F):	75
24 Hour Low Temperature (F):	55
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	7.7%
Slag 78	32.0%
Slag 8910	28.0%
Limestone Manufactured Sand	40.0%

Approximate Length (ft):	200
Surveyed Thickness of Section (in):	4.3
Std Dev of Section Thickness (in):	0.3
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	316
Average Section Compaction:	94.7%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N3

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:	Lms/Slag
Gradation Type:	ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	99
3/8"	91
No. 4	68
No. 8	51
No. 16	33
No. 30	22
No. 50	15
No. 100	10
No. 200	6.5

Asphalt Binder Content:	7.6%
Compacted Pill Bulk Gravity:	2.294
Theoretical Maximum Gravity:	2.369
Computed Air Voids:	3.2%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Wednesday, April 26, 2000
24 Hour High Temperature (F):	85
24 Hour Low Temperature (F):	55
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	7.5%
Slag 78	32.0%
Slag 8910	28.0%
Limestone Manufactured Sand	40.0%

Approximate Length (ft):	200
Surveyed Thickness of Section (in):	4.2
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	295
Average Section Compaction:	94.1%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N4

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:	Lms/Slag
Gradation Type:	ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	99
3/8"	91
No. 4	68
No. 8	52
No. 16	35
No. 30	23
No. 50	15
No. 100	9
No. 200	6.0

Asphalt Binder Content:	6.8%
Compacted Pill Bulk Gravity:	2.296
Theoretical Maximum Gravity:	2.400
Computed Air Voids:	4.3%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, May 18, 2000
24 Hour High Temperature (F):	85
24 Hour Low Temperature (F):	55
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	7.1%
Slag 78	32.0%
Slag 8910	28.0%
Limestone Manufactured Sand	40.0%

Approximate Length (ft):	199
Surveyed Thickness of Section (in):	4.2
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	288
Average Section Compaction:	93.4%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N5

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:	Lms/Slag
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	99
3/8"	84
No. 4	52
No. 8	38
No. 16	26
No. 30	18
No. 50	14
No. 100	11
No. 200	8.3

Asphalt Binder Content:	6.9%
Compacted Pill Bulk Gravity:	2.285
Theoretical Maximum Gravity:	2.355
Computed Air Voids:	3.0%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, May 18, 2000
24 Hour High Temperature (F):	89
24 Hour Low Temperature (F):	68
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.9%
Slag 78	53.0%
Slag 8910	17.0%
Limestone Modified 8910	30.0%

Approximate Length (ft):	201
Surveyed Thickness of Section (in):	4.4
Std Dev of Section Thickness (in):	0.3
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	282
Average Section Compaction:	93.8%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N6

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:	Lms/Slag
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	99
3/8"	85
No. 4	54
No. 8	37
No. 16	25
No. 30	17
No. 50	13
No. 100	10
No. 200	8.2

Asphalt Binder Content:	6.8%
Compacted Pill Bulk Gravity:	2.270
Theoretical Maximum Gravity:	2.348
Computed Air Voids:	3.3%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, June 01, 2000
24 Hour High Temperature (F):	92
24 Hour Low Temperature (F):	67
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.5%
Slag 78	53.0%
Slag 8910	17.0%
Limestone Modified 8910	30.0%

Approximate Length (ft):	197
Surveyed Thickness of Section (in):	4.1
Std Dev of Section Thickness (in):	0.2
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	289
Average Section Compaction:	94.4%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N7

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBR
Aggregate Type:	Lms/Slag
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	98
3/8"	83
No. 4	52
No. 8	36
No. 16	24
No. 30	17
No. 50	13
No. 100	10
No. 200	7.8

Asphalt Binder Content:	6.9%
Compacted Pill Bulk Gravity:	2.281
Theoretical Maximum Gravity:	2.330
Computed Air Voids:	2.1%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, June 01, 2000
24 Hour High Temperature (F):	92
24 Hour Low Temperature (F):	67
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.9%
Slag 78	53.0%
Slag 8910	17.0%
Limestone Modified 8910	30.0%

Approximate Length (ft):	203
Surveyed Thickness of Section (in):	3.9
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	323
Average Section Compaction:	93.9%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N8

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBR
Aggregate Type:	Lms/Slag
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	99
3/8"	85
No. 4	55
No. 8	37
No. 16	24
No. 30	17
No. 50	13
No. 100	10
No. 200	7.5

Asphalt Binder Content:	6.6%
Compacted Pill Bulk Gravity:	2.256
Theoretical Maximum Gravity:	2.351
Computed Air Voids:	4.0%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Monday, June 05, 2000
24 Hour High Temperature (F):	77
24 Hour Low Temperature (F):	60
24 Hour Rainfall (in):	0.08
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.4%
Slag 78	53.0%
Slag 8910	17.0%
Limestone Modified 8910	30.0%

Approximate Length (ft):	203
Surveyed Thickness of Section (in):	3.9
Std Dev of Section Thickness (in):	0.2
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	319
Average Section Compaction:	94.7%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N9

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Lms/Slag
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	99
3/8"	87
No. 4	57
No. 8	40
No. 16	26
No. 30	19
No. 50	14
No. 100	11
No. 200	8.8

Asphalt Binder Content:	6.7%
Compacted Pill Bulk Gravity:	2.279
Theoretical Maximum Gravity:	2.354
Computed Air Voids:	3.2%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Wednesday, June 07, 2000
24 Hour High Temperature (F):	84
24 Hour Low Temperature (F):	60
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.4%
Slag 78	53.0%
Slag 8910	17.0%
Limestone Modified 8910	30.0%

Approximate Length (ft):	197
Surveyed Thickness of Section (in):	3.9
Std Dev of Section Thickness (in):	0.2
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	314
Average Section Compaction:	94.5%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N10

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Lms/Slag
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	98
3/8"	84
No. 4	51
No. 8	34
No. 16	23
No. 30	17
No. 50	13
No. 100	10
No. 200	7.7

Asphalt Binder Content:	6.8%
Compacted Pill Bulk Gravity:	2.257
Theoretical Maximum Gravity:	2.339
Computed Air Voids:	3.5%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Wednesday, June 07, 2000
24 Hour High Temperature (F):	84
24 Hour Low Temperature (F):	60
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.9%
Slag 78	53.0%
Slag 8910	17.0%
Limestone Modified 8910	30.0%

Approximate Length (ft):	206
Surveyed Thickness of Section (in):	4.2
Std Dev of Section Thickness (in):	0.3
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	324
Average Section Compaction:	94.7%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N11 (Lower Layer)

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:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	81
3/8"	70
No. 4	46
No. 8	34
No. 16	27
No. 30	21
No. 50	15
No. 100	10
No. 200	6.3

Asphalt Binder Content:	4.1%
Compacted Pill Bulk Gravity:	2.448
Theoretical Maximum Gravity:	2.529
Computed Air Voids:	3.2%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Tuesday, June 06, 2000
24 Hour High Temperature (F):	85
24 Hour Low Temperature (F):	68
24 Hour Rainfall (in):	0.00
Lift Type:	lower
Design Thickness of Test Mix (in):	2.5

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.3%
Granite 6	27.0%
Granite 7	17.0%
Granite 89	20.0%
Granite M10	24.0%
Granite W10	11.0%
Antistrip Hydrated Lime	1.0%

Approximate Length (ft):	195
Surveyed Thickness of Section (in):	NA
Std Dev of Section Thickness (in):	NA
Type of Tack Coat Utilized:	PG 67-22
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	296
Average Section Compaction:	92.7%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N11 (Upper Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Granite
Gradation Type:	TRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	97
3/8"	80
No. 4	52
No. 8	37
No. 16	30
No. 30	24
No. 50	18
No. 100	11
No. 200	7.2

Asphalt Binder Content:	4.3%
Compacted Pill Bulk Gravity:	2.434
Theoretical Maximum Gravity:	2.519
Computed Air Voids:	3.4%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Monday, June 12, 2000
24 Hour High Temperature (F):	83
24 Hour Low Temperature (F):	54
24 Hour Rainfall (in):	0.00
Lift Type:	upper
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.5%
Granite 7	38.0%
Granite 89	18.0%
Granite M10	32.0%
Granite W10	11.0%
Antistrip Hydrated Lime	1.0%

Approximate Length (ft):	195
Surveyed Thickness of Section (in):	4.1
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	PG 67-22
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	327
Average Section Compaction:	93.1%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N12 (Lower Layer)

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:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	99
1/2"	83
3/8"	72
No. 4	49
No. 8	36
No. 16	28
No. 30	22
No. 50	16
No. 100	10
No. 200	6.5

Asphalt Binder Content:	4.2%
Compacted Pill Bulk Gravity:	2.445
Theoretical Maximum Gravity:	2.535
Computed Air Voids:	3.5%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Tuesday, June 06, 2000
24 Hour High Temperature (F):	85
24 Hour Low Temperature (F):	68
24 Hour Rainfall (in):	0.00
Lift Type:	lower
Design Thickness of Test Mix (in):	2.5

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.3%
Granite 6	27.0%
Granite 7	17.0%
Granite 89	20.0%
Granite M10	24.0%
Granite W10	11.0%
Antistrip Hydrated Lime	1.0%

Approximate Length (ft):	201
Surveyed Thickness of Section (in):	NA
Std Dev of Section Thickness (in):	NA
Type of Tack Coat Utilized:	PG 67-22
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	293
Average Section Compaction:	92.4%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N12 (Upper Layer)

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>% Passing:</u>
1"	100
3/4"	100
1/2"	96
3/8"	73
No. 4	32
No. 8	23
No. 16	21
No. 30	19
No. 50	17
No. 100	14
No. 200	11.8

Asphalt Binder Content:	6.2%
Compacted Pill Bulk Gravity:	2.335
Theoretical Maximum Gravity:	2.401
Computed Air Voids:	2.7%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Monday, June 12, 2000
24 Hour High Temperature (F):	93
24 Hour Low Temperature (F):	67
24 Hour Rainfall (in):	0.00
Lift Type:	upper
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.1%
Granite 7	60.0%
Granite 89	22.0%
Granite M10	10.0%
Stabilizer Fiber	0.4%
Filler Fly Ash	7.0%
Antistrip Hydrated Lime	1.0%

Approximate Length (ft):	201
Surveyed Thickness of Section (in):	3.9
Std Dev of Section Thickness (in):	0.2
Type of Tack Coat Utilized:	PG 67-22
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	343
Average Section Compaction:	94.6%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N13 (Lower Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Gravel
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	88
3/8"	73
No. 4	51
No. 8	33
No. 16	25
No. 30	20
No. 50	13
No. 100	8
No. 200	6.3

Asphalt Binder Content:	5.0%
Compacted Pill Bulk Gravity:	2.310
Theoretical Maximum Gravity:	2.384
Computed Air Voids:	3.1%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Wednesday, June 07, 2000
24 Hour High Temperature (F):	84
24 Hour Low Temperature (F):	60
24 Hour Rainfall (in):	0.00
Lift Type:	lower
Design Thickness of Test Mix (in):	2.5

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.9%
Gravel 3/4" Crushed Gravel	38.0%
Gravel 3/8" Crushed Gravel	43.0%
Limestone Modified 8910	8.0%
Gravel Coarse Sand	10.0%
Antistrip Hydrated Lime	1.0%

Approximate Length (ft):	199
Surveyed Thickness of Section (in):	NA
Std Dev of Section Thickness (in):	NA
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	318
Average Section Compaction:	92.5%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section N13 (Upper Layer)

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:	Gravel
Gradation Type:	SMA

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	99
3/8"	74
No. 4	30
No. 8	25
No. 16	23
No. 30	21
No. 50	17
No. 100	13
No. 200	11.5

Asphalt Binder Content:	6.8%
Compacted Pill Bulk Gravity:	2.175
Theoretical Maximum Gravity:	2.266
Computed Air Voids:	4.0%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Monday, June 12, 2000
24 Hour High Temperature (F):	93
24 Hour Low Temperature (F):	67
24 Hour Rainfall (in):	0.00
Lift Type:	upper
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.7%
Gravel	1/2" Crushed Gravel 72.5%
Gravel	3/8" Crushed Gravel 10.0%
Gravel	Coarse Sand 9.5%
Stabilizer	Fiber 0.5%
Filler	Fly Ash 8.0%

Approximate Length (ft):	199
Surveyed Thickness of Section (in):	4.0
Std Dev of Section Thickness (in):	0.2
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	325
Average Section Compaction:	92.0%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section W1

Laboratory Diary

General Description of Mix and Materials

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

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	95
3/8"	68
No. 4	28
No. 8	20
No. 16	18
No. 30	16
No. 50	14
No. 100	12
No. 200	9.7

Asphalt Binder Content:	6.1%
Compacted Pill Bulk Gravity:	2.337
Theoretical Maximum Gravity:	2.422
Computed Air Voids:	3.5%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Tuesday, June 13, 2000
24 Hour High Temperature (F):	92
24 Hour Low Temperature (F):	73
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.2%
Granite 7	73.0%
Granite 89	11.0%
Granite M10	10.0%
Stabilizer Fiber	0.4%
Filler Fly Ash	6.0%

Approximate Length (ft):	202
Surveyed Thickness of Section (in):	3.9
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	328
Average Section Compaction:	95.0%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section W2

Laboratory Diary

General Description of Mix and Materials

Design Method:	SMA
Compactive Effort:	50 blows
Binder Performance Grade:	76-22
Modifier Type:	SBR
Aggregate Type:	Lms/Slag
Gradation Type:	SMA

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	98
3/8"	77
No. 4	35
No. 8	24
No. 16	17
No. 30	15
No. 50	13
No. 100	12
No. 200	10.7

Asphalt Binder Content:	8.0%
Compacted Pill Bulk Gravity:	2.158
Theoretical Maximum Gravity:	2.243
Computed Air Voids:	3.8%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, June 15, 2000
24 Hour High Temperature (F):	89
24 Hour Low Temperature (F):	76
24 Hour Rainfall (in):	0.17
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>	
Liquid Binder Setting	7.7%	
Slag	78	74.0%
Limestone	89	10.0%
Limestone	Manufactured Sand	10.0%
Stabilizer	Fiber	0.4%
Filler	Fly Ash	6.0%

Approximate Length (ft):	200
Surveyed Thickness of Section (in):	4.0
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	323
Average Section Compaction:	94.3%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section W3 (Lower Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBR
Aggregate Type:	Granite
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	96
3/8"	76
No. 4	41
No. 8	29
No. 16	23
No. 30	18
No. 50	12
No. 100	7
No. 200	4.1

Asphalt Binder Content:	4.7%
Compacted Pill Bulk Gravity:	2.394
Theoretical Maximum Gravity:	2.510
Computed Air Voids:	4.6%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, June 15, 2000
24 Hour High Temperature (F):	89
24 Hour Low Temperature (F):	76
24 Hour Rainfall (in):	0.00
Lift Type:	lower
Design Thickness of Test Mix (in):	3.3

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.7%
Granite 7	48.0%
Granite 89	19.0%
Granite M10	18.0%
Granite W10	15.0%

Approximate Length (ft):	205
Surveyed Thickness of Section (in):	NA
Std Dev of Section Thickness (in):	NA
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	315
Average Section Compaction:	93.2%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section W3 (Upper Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	OGFC
Compactive Effort:	50 blows
Binder Performance Grade:	76-22
Modifier Type:	SBR
Aggregate Type:	Lms/Slag
Gradation Type:	OGFC

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	98
3/8"	68
No. 4	19
No. 8	13
No. 16	11
No. 30	10
No. 50	9
No. 100	8
No. 200	6.8

Asphalt Binder Content:	7.6%
Compacted Pill Bulk Gravity:	NA
Theoretical Maximum Gravity:	NA
Computed Air Voids:	NA

Construction Diary

Relevant Conditions for Construction

Completion Date:	Monday, June 19, 2000
24 Hour High Temperature (F):	90
24 Hour Low Temperature (F):	78
24 Hour Rainfall (in):	0.00
Lift Type:	upper
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	8.5%
Limestone 7	20.0%
Slag 78	75.0%
Stabilizer Fiber	0.4%
Filler Fly Ash	5.0%

Approximate Length (ft):	205
Surveyed Thickness of Section (in):	4.0
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	304
Average Section Compaction:	NA

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section W4 (Lower Layer)

Laboratory Diary

General Description of Mix and Materials

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

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	96
3/8"	72
No. 4	24
No. 8	18
No. 16	15
No. 30	13
No. 50	13
No. 100	12
No. 200	11.1

Asphalt Binder Content:	6.2%
Compacted Pill Bulk Gravity:	2.392
Theoretical Maximum Gravity:	2.459
Computed Air Voids:	2.7%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, June 15, 2000
24 Hour High Temperature (F):	89
24 Hour Low Temperature (F):	76
24 Hour Rainfall (in):	0.17
Lift Type:	lower
Design Thickness of Test Mix (in):	3.3

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.2%
Limestone 7	82.0%
Limestone Modified 8910	11.0%
Stabilizer Fiber	0.4%
Filler Fly Ash	7.0%

Approximate Length (ft):	199
Surveyed Thickness of Section (in):	NA
Std Dev of Section Thickness (in):	NA
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	321
Average Section Compaction:	95.3%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section W4 (Upper Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	OGFC
Compactive Effort:	NA
Binder Performance Grade:	76-22
Modifier Type:	SBR
Aggregate Type:	Granite
Gradation Type:	OGFC

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	95
3/8"	66
No. 4	23
No. 8	14
No. 16	13
No. 30	12
No. 50	11
No. 100	10
No. 200	8.6

Asphalt Binder Content:	6.1%
Compacted Pill Bulk Gravity:	NA
Theoretical Maximum Gravity:	NA
Computed Air Voids:	NA

Construction Diary

Relevant Conditions for Construction

Completion Date:	Tuesday, June 20, 2000
24 Hour High Temperature (F):	90
24 Hour Low Temperature (F):	74
24 Hour Rainfall (in):	0.00
Lift Type:	upper
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.3%
Granite 7	75.0%
Granite 89	19.0%
Stabilizer Fiber	0.5%
Filler Fly Ash	6.0%

Approximate Length (ft):	199
Surveyed Thickness of Section (in):	4.1
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	321
Average Section Compaction:	NA

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section W5 (Lower Layer)

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:	Limestone
Gradation Type:	SMA

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	96
3/8"	75
No. 4	25
No. 8	19
No. 16	15
No. 30	14
No. 50	14
No. 100	13
No. 200	12.4

Asphalt Binder Content:	5.7%
Compacted Pill Bulk Gravity:	2.391
Theoretical Maximum Gravity:	2.487
Computed Air Voids:	3.9%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Monday, June 19, 2000
24 Hour High Temperature (F):	90
24 Hour Low Temperature (F):	78
24 Hour Rainfall (in):	0.17
Lift Type:	lower
Design Thickness of Test Mix (in):	3.3

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.8%
Limestone 7	82.0%
Limestone Modified 8910	11.0%
Stabilizer Fiber	0.4%
Filler Fly Ash	7.0%

Approximate Length (ft):	203
Surveyed Thickness of Section (in):	NA
Std Dev of Section Thickness (in):	NA
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	336
Average Section Compaction:	94.2%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section W5 (Upper Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	OGFC
Compactive Effort:	NA
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Granite
Gradation Type:	OGFC

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	95
3/8"	67
No. 4	22
No. 8	15
No. 16	12
No. 30	11
No. 50	11
No. 100	10
No. 200	8.5

Asphalt Binder Content:	6.2%
Compacted Pill Bulk Gravity:	NA
Theoretical Maximum Gravity:	NA
Computed Air Voids:	NA

Construction Diary

Relevant Conditions for Construction

Completion Date:	Tuesday, June 20, 2000
24 Hour High Temperature (F):	90
24 Hour Low Temperature (F):	74
24 Hour Rainfall (in):	0.00
Lift Type:	upper
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.2%
Granite 7	75.0%
Granite 89	19.0%
Stabilizer Fiber	0.5%
Filler Fly Ash	6.0%

Approximate Length (ft):	203
Surveyed Thickness of Section (in):	4.3
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	330
Average Section Compaction:	NA

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section W6

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:	Lms/Slag
Gradation Type:	TRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	99
3/8"	89
No. 4	65
No. 8	45
No. 16	28
No. 30	18
No. 50	13
No. 100	10
No. 200	7.8

Asphalt Binder Content:	6.8%
Compacted Pill Bulk Gravity:	2.291
Theoretical Maximum Gravity:	2.354
Computed Air Voids:	2.7%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Tuesday, June 20, 2000
24 Hour High Temperature (F):	90
24 Hour Low Temperature (F):	74
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.8%
Slag 78	39.0%
Limestone Modified 8910	25.0%
Slag 8910	26.0%
Limestone Manufactured Sand	10.0%

Approximate Length (ft):	203
Surveyed Thickness of Section (in):	4.1
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	320
Average Section Compaction:	92.1%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section W7

Laboratory Diary

General Description of Mix and Materials

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

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	96
3/8"	69
No. 4	22
No. 8	17
No. 16	14
No. 30	12
No. 50	12
No. 100	12
No. 200	10.9

Asphalt Binder Content:	5.9%
Compacted Pill Bulk Gravity:	2.378
Theoretical Maximum Gravity:	2.480
Computed Air Voids:	4.1%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Wednesday, June 21, 2000
24 Hour High Temperature (F):	91
24 Hour Low Temperature (F):	72
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.1%
Limestone 7	82.0%
Limestone Modified 8910	11.0%
Stabilizer Fiber	0.4%
Filler Fly Ash	7.0%

Approximate Length (ft):	207
Surveyed Thickness of Section (in):	4.2
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	323
Average Section Compaction:	93.5%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section W8

Laboratory Diary

General Description of Mix and Materials

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

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	99
3/8"	80
No. 4	33
No. 8	25
No. 16	22
No. 30	20
No. 50	18
No. 100	15
No. 200	12.9

Asphalt Binder Content:	7.5%
Compacted Pill Bulk Gravity:	2.272
Theoretical Maximum Gravity:	2.355
Computed Air Voids:	3.5%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Wednesday, June 21, 2000
24 Hour High Temperature (F):	91
24 Hour Low Temperature (F):	72
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>	
Liquid Binder Setting	7.0%	
Limestone	7	30.0%
Slag	78	34.0%
Sand Stone	8	19.0%
Stabilizer	Fiber	0.4%
Filler	Fly Ash	8.0%
Sand Stone	Sand	9.0%

Approximate Length (ft):	197
Surveyed Thickness of Section (in):	4.0
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	322
Average Section Compaction:	94.5%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section W9

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:	Qtz gravel
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	96
3/8"	80
No. 4	51
No. 8	34
No. 16	22
No. 30	16
No. 50	12
No. 100	9
No. 200	6.7

Asphalt Binder Content:	5.0%
Compacted Pill Bulk Gravity:	2.380
Theoretical Maximum Gravity:	2.465
Computed Air Voids:	3.4%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, June 22, 2000
24 Hour High Temperature (F):	92
24 Hour Low Temperature (F):	75
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.1%
Gravel 1/2" Crushed Gravel	74.0%
Gravel 3/8" Crushed Gravel	10.0%
Limestone Modified 8910	16.0%

Approximate Length (ft):	203
Surveyed Thickness of Section (in):	4.0
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	310
Average Section Compaction:	93.6%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section W10

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBR
Aggregate Type:	Qtz gravel
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	96
3/8"	81
No. 4	51
No. 8	33
No. 16	22
No. 30	16
No. 50	12
No. 100	9
No. 200	6.5

Asphalt Binder Content:	5.0%
Compacted Pill Bulk Gravity:	2.361
Theoretical Maximum Gravity:	2.460
Computed Air Voids:	4.0%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Friday, June 23, 2000
24 Hour High Temperature (F):	98
24 Hour Low Temperature (F):	78
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.9%
Gravel 1/2" Crushed Gravel	74.0%
Gravel 3/8" Crushed Gravel	10.0%
Limestone Modified 8910	16.0%

Approximate Length (ft):	102
Surveyed Thickness of Section (in):	3.9
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	326
Average Section Compaction:	93.3%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S1 (Lower Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Granite
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	97
1/2"	66
3/8"	48
No. 4	32
No. 8	24
No. 16	20
No. 30	16
No. 50	11
No. 100	7
No. 200	4.1

Asphalt Binder Content:	5.0%
Compacted Pill Bulk Gravity:	2.408
Theoretical Maximum Gravity:	2.484
Computed Air Voids:	3.1%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, June 22, 2000
24 Hour High Temperature (F):	92
24 Hour Low Temperature (F):	75
24 Hour Rainfall (in):	0.00
Lift Type:	lower
Design Thickness of Test Mix (in):	2.5

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.7%
Granite 6M	52.0%
Granite 789	20.0%
Granite Manufactured Sand	10.0%
Granite Regular Screenings	18.0%

Approximate Length (ft):	200
Surveyed Thickness of Section (in):	NA
Std Dev of Section Thickness (in):	NA
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	329
Average Section Compaction:	93.7%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S1 (Upper Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Granite
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	95
3/8"	86
No. 4	54
No. 8	36
No. 16	28
No. 30	21
No. 50	15
No. 100	9
No. 200	5.5

Asphalt Binder Content:	5.0%
Compacted Pill Bulk Gravity:	2.378
Theoretical Maximum Gravity:	2.452
Computed Air Voids:	3.0%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Monday, June 26, 2000
24 Hour High Temperature (F):	92
24 Hour Low Temperature (F):	75
24 Hour Rainfall (in):	0.00
Lift Type:	upper
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.2%
Granite 6M	10.0%
Granite 789	53.0%
Granite Manufactured Sand	12.0%
Granite Regular Screenings	25.0%

Approximate Length (ft):	200
Surveyed Thickness of Section (in):	3.9
Std Dev of Section Thickness (in):	0.0
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	335
Average Section Compaction:	94.8%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S2 (Lower Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Gravel
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	86
3/8"	69
No. 4	46
No. 8	30
No. 16	23
No. 30	19
No. 50	11
No. 100	7
No. 200	5.5

Asphalt Binder Content:	4.9%
Compacted Pill Bulk Gravity:	2.282
Theoretical Maximum Gravity:	2.388
Computed Air Voids:	4.4%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, June 22, 2000
24 Hour High Temperature (F):	92
24 Hour Low Temperature (F):	75
24 Hour Rainfall (in):	0.00
Lift Type:	lower
Design Thickness of Test Mix (in):	2.5

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.9%
Gravel 3/4" Crushed Gravel	38.0%
Gravel 3/8" Crushed Gravel	43.0%
Limestone Modified 8910	8.0%
Gravel Coarse Sand	10.0%
Antistrip Hydrated Lime	1.0%

Approximate Length (ft):	200
Surveyed Thickness of Section (in):	NA
Std Dev of Section Thickness (in):	NA
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	329
Average Section Compaction:	93.0%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S2 (Upper Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Gravel
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	100
3/8"	96
No. 4	67
No. 8	41
No. 16	29
No. 30	22
No. 50	15
No. 100	10
No. 200	8.4

Asphalt Binder Content:	6.0%
Compacted Pill Bulk Gravity:	2.233
Theoretical Maximum Gravity:	2.342
Computed Air Voids:	4.7%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Tuesday, June 27, 2000
24 Hour High Temperature (F):	92
24 Hour Low Temperature (F):	75
24 Hour Rainfall (in):	0.00
Lift Type:	upper
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.3%
Gravel 1/2" Crushed Gravel	15.0%
Gravel 3/8" Crushed Gravel	72.0%
AggLime Agricultural Lime	5.0%
Gravel Coarse Sand	7.0%
Antistrip Hydrated Lime	1.0%

Approximate Length (ft):	200
Surveyed Thickness of Section (in):	3.9
Std Dev of Section Thickness (in):	0.0
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	325
Average Section Compaction:	93.8%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S3 (Lower Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Limestone
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	97
1/2"	86
3/8"	80
No. 4	47
No. 8	27
No. 16	20
No. 30	16
No. 50	12
No. 100	9
No. 200	7.3

Asphalt Binder Content:	4.2%
Compacted Pill Bulk Gravity:	2.461
Theoretical Maximum Gravity:	2.559
Computed Air Voids:	3.8%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Monday, June 26, 2000
24 Hour High Temperature (F):	92
24 Hour Low Temperature (F):	75
24 Hour Rainfall (in):	0.00
Lift Type:	lower
Design Thickness of Test Mix (in):	2.5

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.4%
Limestone 67	26.0%
Limestone Modified 8910	28.0%
Limestone 89	40.0%
Gravel Coarse Sand	5.0%
Antistrip Hydrated Lime	1.0%

Approximate Length (ft):	201
Surveyed Thickness of Section (in):	NA
Std Dev of Section Thickness (in):	NA
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	332
Average Section Compaction:	92.8%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S3 (Upper Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Lms/gravel
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	100
3/8"	100
No. 4	70
No. 8	43
No. 16	29
No. 30	21
No. 50	15
No. 100	11
No. 200	8.9

Asphalt Binder Content:	5.6%
Compacted Pill Bulk Gravity:	2.329
Theoretical Maximum Gravity:	2.414
Computed Air Voids:	3.5%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, July 06, 2000
24 Hour High Temperature (F):	98
24 Hour Low Temperature (F):	78
24 Hour Rainfall (in):	0.00
Lift Type:	upper
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.9%
Gravel 3/8" Crushed Gravel	47.0%
Limestone Modified 8910	34.0%
Limestone 89	14.0%
Gravel Coarse Sand	4.0%
Antistrip Hydrated Lime	1.0%

Approximate Length (ft):	201
Surveyed Thickness of Section (in):	4.0
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	316
Average Section Compaction:	92.7%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S4 (Lower Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	125 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Lms/RAP
Gradation Type:	ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	99
1/2"	88
3/8"	69
No. 4	48
No. 8	38
No. 16	30
No. 30	24
No. 50	15
No. 100	9
No. 200	6.5

Asphalt Binder Content:	4.1%
Compacted Pill Bulk Gravity:	2.466
Theoretical Maximum Gravity:	2.567
Computed Air Voids:	3.9%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Wednesday, July 05, 2000
24 Hour High Temperature (F):	96
24 Hour Low Temperature (F):	71
24 Hour Rainfall (in):	0.00
Lift Type:	lower
Design Thickness of Test Mix (in):	2.5

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.3%
Limestone 6	30.0%
Limestone 78	25.0%
Sand Manufactured	20.0%
Sand Natural	15.0%
Recycle RAP	10.0%

Approximate Length (ft):	198
Surveyed Thickness of Section (in):	NA
Std Dev of Section Thickness (in):	NA
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	322
Average Section Compaction:	93.6%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S4 (Upper Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	125 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Limestone
Gradation Type:	ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	98
3/8"	88
No. 4	63
No. 8	46
No. 16	33
No. 30	23
No. 50	13
No. 100	9
No. 200	7.8

Asphalt Binder Content:	5.3%
Compacted Pill Bulk Gravity:	2.394
Theoretical Maximum Gravity:	2.449
Computed Air Voids:	2.2%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, July 06, 2000
24 Hour High Temperature (F):	98
24 Hour Low Temperature (F):	78
24 Hour Rainfall (in):	0.00
Lift Type:	upper
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.3%
Limestone 10's (Hard)	15.0%
Limestone 10's (Soft)	10.0%
Limestone 5/8 D Rock	45.0%
Sand Manufactured	15.0%
Sand Natural	15.0%

Approximate Length (ft):	198
Surveyed Thickness of Section (in):	4.0
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	322
Average Section Compaction:	94.3%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S5 (Lower Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	125 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Lms/Gravel/RAP
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	95
1/2"	83
3/8"	73
No. 4	53
No. 8	36
No. 16	27
No. 30	21
No. 50	15
No. 100	12
No. 200	8.7

Asphalt Binder Content:	4.0%
Compacted Pill Bulk Gravity:	2.369
Theoretical Maximum Gravity:	2.446
Computed Air Voids:	3.1%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Wednesday, July 05, 2000
24 Hour High Temperature (F):	96
24 Hour Low Temperature (F):	76
24 Hour Rainfall (in):	0.00
Lift Type:	lower
Design Thickness of Test Mix (in):	2.5

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.6%
Gravel 10	14.0%
Gravel 57	33.0%
Gravel 7	26.0%
Sand Manufactured	15.0%
Recycle RAP	12.0%

Approximate Length (ft):	203
Surveyed Thickness of Section (in):	NA
Std Dev of Section Thickness (in):	NA
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	331
Average Section Compaction:	91.5%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S5 (Upper Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	125 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Gravel
Gradation Type:	TRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	95
3/8"	82
No. 4	61
No. 8	45
No. 16	33
No. 30	22
No. 50	10
No. 100	7
No. 200	5.0

Asphalt Binder Content:	5.6%
Compacted Pill Bulk Gravity:	2.332
Theoretical Maximum Gravity:	2.413
Computed Air Voids:	3.4%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Friday, July 07, 2000
24 Hour High Temperature (F):	100
24 Hour Low Temperature (F):	79
24 Hour Rainfall (in):	0.00
Lift Type:	upper
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.5%
Gravel 10	21.0%
Gravel 5/8 D Rock	60.0%
Sand Natural	19.0%

Approximate Length (ft):	203
Surveyed Thickness of Section (in):	4.1
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	323
Average Section Compaction:	94.9%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S6

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:	Lms/RAP
Gradation Type:	ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	95
3/8"	87
No. 4	74
No. 8	53
No. 16	41
No. 30	33
No. 50	24
No. 100	12
No. 200	5.9

Asphalt Binder Content:	6.2%
Compacted Pill Bulk Gravity:	2.250
Theoretical Maximum Gravity:	2.356
Computed Air Voids:	4.5%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Friday, July 07, 2000
24 Hour High Temperature (F):	100
24 Hour Low Temperature (F):	79
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.6%
Limestone C22 Screenings	45.0%
Limestone 78	20.0%
Limestone 9	20.0%
Recycle RAP	15.0%

Approximate Length (ft):	198
Surveyed Thickness of Section (in):	4.1
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	332
Average Section Compaction:	92.9%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S7

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:	Lms/RAP
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	96
3/8"	88
No. 4	71
No. 8	34
No. 16	25
No. 30	20
No. 50	16
No. 100	10
No. 200	6.2

Asphalt Binder Content:	6.6%
Compacted Pill Bulk Gravity:	2.245
Theoretical Maximum Gravity:	2.321
Computed Air Voids:	3.3%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Saturday, July 08, 2000
24 Hour High Temperature (F):	100
24 Hour Low Temperature (F):	79
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	6.9%
Limestone C20 Screenings	16.0%
Limestone 78	20.0%
Limestone 9	51.0%
Recycle RAP	13.0%

Approximate Length (ft):	202
Surveyed Thickness of Section (in):	4.0
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	313
Average Section Compaction:	93.2%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S8 (Lower Layer)

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:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	87
3/8"	70
No. 4	39
No. 8	26
No. 16	18
No. 30	14
No. 50	12
No. 100	10
No. 200	7.1

Asphalt Binder Content:	3.7%
Compacted Pill Bulk Gravity:	2.598
Theoretical Maximum Gravity:	2.667
Computed Air Voids:	2.6%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Friday, July 07, 2000
24 Hour High Temperature (F):	100
24 Hour Low Temperature (F):	79
24 Hour Rainfall (in):	0.00
Lift Type:	lower
Design Thickness of Test Mix (in):	2.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	3.9%
Granite 67	32.0%
Granite 78M	41.0%
Granite Manufactured Sand	21.0%
Granite Regular Screenings	5.0%
Antistrip Hydrated Lime	1.0%

Approximate Length (ft):	197
Surveyed Thickness of Section (in):	NA
Std Dev of Section Thickness (in):	NA
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	331
Average Section Compaction:	93.8%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S8 (Upper Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Granite
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	100
3/8"	93
No. 4	58
No. 8	38
No. 16	25
No. 30	19
No. 50	15
No. 100	12
No. 200	7.8

Asphalt Binder Content:	4.2%
Compacted Pill Bulk Gravity:	2.576
Theoretical Maximum Gravity:	2.647
Computed Air Voids:	2.7%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Saturday, July 08, 2000
24 Hour High Temperature (F):	103
24 Hour Low Temperature (F):	79
24 Hour Rainfall (in):	0.00
Lift Type:	upper
Design Thickness of Test Mix (in):	3.6

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.2%
Granite 78M	49.0%
Granite Manufactured Sand	45.0%
Granite Regular Screenings	5.0%
Antistrip Hydrated Lime	1.0%

Approximate Length (ft):	197
Surveyed Thickness of Section (in):	3.8
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	322
Average Section Compaction:	91.8%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S9

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:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	93
3/8"	82
No. 4	53
No. 8	36
No. 16	27
No. 30	20
No. 50	14
No. 100	9
No. 200	5.7

Asphalt Binder Content:	4.7%
Compacted Pill Bulk Gravity:	2.419
Theoretical Maximum Gravity:	2.510
Computed Air Voids:	3.6%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Monday, July 10, 2000
24 Hour High Temperature (F):	101
24 Hour Low Temperature (F):	75
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	3.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.8%
Granite 67	15.0%
Granite 78M	47.0%
Granite Dry Screenings	20.0%
Granite Washed Screenings	18.0%

Approximate Length (ft):	206
Surveyed Thickness of Section (in):	3.0
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	331
Average Section Compaction:	93.4%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S10

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:	ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	95
3/8"	88
No. 4	69
No. 8	52
No. 16	38
No. 30	27
No. 50	19
No. 100	11
No. 200	6.6

Asphalt Binder Content:	5.2%
Compacted Pill Bulk Gravity:	2.407
Theoretical Maximum Gravity:	2.488
Computed Air Voids:	3.2%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Tuesday, July 11, 2000
24 Hour High Temperature (F):	98
24 Hour Low Temperature (F):	78
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	3.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.3%
Granite 67	11.0%
Granite 78M	25.0%
Granite Dry Screenings	32.0%
Granite Washed Screenings	32.0%

Approximate Length (ft):	195
Surveyed Thickness of Section (in):	3.1
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	300
Average Section Compaction:	93.7%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S11 (Lower Layer)

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:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	86
3/8"	70
No. 4	38
No. 8	26
No. 16	18
No. 30	14
No. 50	12
No. 100	10
No. 200	7.2

Asphalt Binder Content:	3.6%
Compacted Pill Bulk Gravity:	2.600
Theoretical Maximum Gravity:	2.662
Computed Air Voids:	2.3%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Monday, July 10, 2000
24 Hour High Temperature (F):	101
24 Hour Low Temperature (F):	75
24 Hour Rainfall (in):	0.00
Lift Type:	lower
Design Thickness of Test Mix (in):	2.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	3.9%
Granite 67	37.0%
Granite 78M	41.0%
Granite Manufactured Sand	16.0%
Granite Regular Screenings	5.0%
Antistrip Hydrated Lime	1.0%

Approximate Length (ft):	202
Surveyed Thickness of Section (in):	NA
Std Dev of Section Thickness (in):	NA
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	324
Average Section Compaction:	94.6%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S11 (Upper Layer)

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	76-22
Modifier Type:	SBS
Aggregate Type:	Granite
Gradation Type:	BRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	100
3/8"	92
No. 4	62
No. 8	47
No. 16	30
No. 30	22
No. 50	17
No. 100	13
No. 200	7.5

Asphalt Binder Content:	3.9%
Compacted Pill Bulk Gravity:	2.567
Theoretical Maximum Gravity:	2.649
Computed Air Voids:	3.1%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Wednesday, July 12, 2000
24 Hour High Temperature (F):	101
24 Hour Low Temperature (F):	79
24 Hour Rainfall (in):	0.00
Lift Type:	upper
Design Thickness of Test Mix (in):	3.6

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.2%
Granite 78M	49.0%
Granite Manufacture Sand	45.0%
Granite Regular Screenings	5.0%
Antistrip Hydrated Lime	1.0%

Approximate Length (ft):	202
Surveyed Thickness of Section (in):	3.6
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	334
Average Section Compaction:	93.2%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S12

Laboratory Diary

General Description of Mix and Materials

Design Method:	Hveem
Compactive Effort:	NA
Binder Performance Grade:	70-28
Modifier Type:	SB
Aggregate Type:	Limestone
Gradation Type:	TRZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	97
3/8"	82
No. 4	63
No. 8	46
No. 16	32
No. 30	23
No. 50	16
No. 100	10
No. 200	7.0

Asphalt Binder Content:	4.5%
Compacted Pill Bulk Gravity:	2.399
Theoretical Maximum Gravity:	2.494
Computed Air Voids:	3.8%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, July 13, 2000
24 Hour High Temperature (F):	100
24 Hour Low Temperature (F):	79
24 Hour Rainfall (in):	0.67
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	4.7%
Limestone 5/8" Chips	35.0%
Limestone Coarse Screenings	32.0%
Sand Natural	8.0%
Sand Stone Sand	25.0%

Approximate Length (ft):	199
Surveyed Thickness of Section (in):	3.8
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	318
Average Section Compaction:	93.9%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section S13

Laboratory Diary

General Description of Mix and Materials

Design Method:	Superpave
Compactive Effort:	100 gyrations
Binder Performance Grade:	70-28
Modifier Type:	SB
Aggregate Type:	Granite
Gradation Type:	ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	93
3/8"	80
No. 4	68
No. 8	50
No. 16	37
No. 30	27
No. 50	19
No. 100	11
No. 200	6.6

Asphalt Binder Content:	5.3%
Compacted Pill Bulk Gravity:	2.290
Theoretical Maximum Gravity:	2.405
Computed Air Voids:	4.8%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Thursday, July 13, 2000
24 Hour High Temperature (F):	100
24 Hour Low Temperature (F):	79
24 Hour Rainfall (in):	0.67
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.3%
Granite 1/2" Chips	16.0%
Granite 3/4" Chips	22.0%
Granite Regular Screenings	22.0%
Sand Manufactured	40.0%

Approximate Length (ft):	201
Surveyed Thickness of Section (in):	4.0
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	322
Average Section Compaction:	93.4%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.

Section E1

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:	Quartzite
Gradation Type:	ARZ

Avg. Lab Properties of Plant Produced Mix

<u>Sieve Size:</u>	<u>% Passing:</u>
1"	100
3/4"	100
1/2"	99
3/8"	92
No. 4	73
No. 8	54
No. 16	38
No. 30	25
No. 50	14
No. 100	9
No. 200	7.4

Asphalt Binder Content:	5.3%
Compacted Pill Bulk Gravity:	2.363
Theoretical Maximum Gravity:	2.444
Computed Air Voids:	3.3%

Construction Diary

Relevant Conditions for Construction

Completion Date:	Friday, July 14, 2000
24 Hour High Temperature (F):	100
24 Hour Low Temperature (F):	80
24 Hour Rainfall (in):	0.00
Lift Type:	dual
Design Thickness of Test Mix (in):	4.0

Plant Configuration and Placement Details

<u>Component:</u>	<u>% Setting:</u>
Liquid Binder Setting	5.3%
Gravel 1/2" Crushed Gravel	36.0%
Gravel 3/8" Crushed Gravel	18.0%
Limestone Manufactured Sand	30.0%
Sand Natural	13.0%
Filler Fly Ash	3.0%

Approximate Length (ft):	199
Surveyed Thickness of Section (in):	4.1
Std Dev of Section Thickness (in):	0.1
Type of Tack Coat Utilized:	CQS-1h
Target Tack Application Rate:	0.03 gal / sy
Avg Mat Temperature Behind Paver (F):	303
Average Section Compaction:	94.0%

General Notes:

- 1) Mixes are listed chronologically in order of completion date (i.e., construction began with E2 and ended with E1).
- 2) Sections are referenced by quadrant and sequence number, where "E2" refers to section 2 of the east quadrant.
- 3) "dual " lift type indicates that the lower and upper lifts were constructed with the same experimental mix.
- 4) The total thickness of all experimental sections is 4 inches by design, with the exception of S8, S9, S10, S11.
- 5) ARZ, TRZ, and BRZ refer to gradations intended to pass above, through, and below the restricted zone.
- 6) SMA and OGFC refer to stone matrix asphalt and open-graded friction course, respectively.