Total Wt

PLANT #: P-101

Sample Date:

0/2/23 Concrete Grade: **S2M, 3500HP** 

ates Test F	Represents:	10/3/2023	through	10/9/2023		
\gg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1525	9.33	2.62	49.9
26A	71-47	Presque Isle	300	1.83	2.62	9.8
2NS	75-051	Mid Michigan	1230	7.41	2.66	40.3

Contractor:

MDOT No.:



---- Verify this number is 100%

Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

	i Otal Wt	10.01		100.0	< verily tills if	umber 13 10070
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	98.5	100.0	100.0	99.3	0.7	0.7
3/4"	79.4	100.0	100.0	89.7	9.5	10.3
1/2"	36.1	94.6	100.0	67.6	22.1	32.4
3/8"	19.6	84.1	100.0	58.3	9.3	41.7
#4	3.4	20.2	96.3	42.5	15.9	57.5
#8	2.4	4.6	81.6	34.5	7.9	65.5
#16	2.2	2.3	67.6	28.5	6.0	71.5
#30	2.1	1.8	52.8	22.5	6.1	77.5
#50	2.0	1.7	27.2	12.1	10.4	87.9
#100	1.9	1.6	7.8	4.2	7.9	95.8
LBW	1.6	1.4	1.0	1.3	2.9	98.7

\*Maximum % Retained must be above the 3/8" sieve.

\*Any two adjacent sieves must equal 10% except max.,

nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation

Batch Plant Gradations

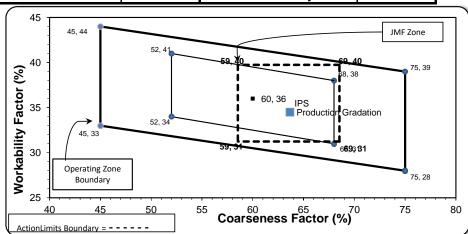
Aggregate Supplier Gradations

Coarseness Factor:

64

Workability Factor:

35



Initial Production Sample (IPS)

Coars	eness Factor:	64	
Workability Factor:		35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	100.0	0.0	0.0
3/4"	93.9	6.1	6.1
1/2"	71.4	22.5	28.6
3/8"	59.0	12.4	41.0
#4	45.1	13.9	54.9
#8	35.5	9.6	64.5
#16	28.3	7.2	71.7
#30	21.3	6.9	78.7
#50	11.0	10.3	89.0
#100	3.4	7.6	96.6
LBW	1.1	2.3	98.9

PREPARED BY: SM, LLC Technical Service Approved By

PLANT #: P-102

Sample Date:

10/2/23 Concrete Grade: **S2M**, **3500HP** 

Dates Test F	Represents:	10/3/2023	through	10/9/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1550	9.23	2.69	50.0
26A	58-003	Stoneco	350	2.09	2.69	11.3
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7
_		Total Wt	3100	18.58		100.0

Contractor:

MDOT No.:



---- Verify this number is 100%

Cumulative % Retained		
	0.0	Suite 500
	0.0	Farmington Hills, MI 48336

Cumulative 6AA 26A % Retained Sieve 2NS % Passing 2" 100.0 100.0 100.0 100.0 0.0 1.5" 100.0 100.0 100.0 100.0 0.0 0.0 100.0 100.0 100.0 100.0 0.0 0.0 3/4" 80.2 100.0 100.0 90.1 9.9 9.9 1/2' 35.4 98.6 100.0 67.5 22.6 32.5 3/8' 87.0 100.0 54.9 12.8 12.6 45.1 #4 2.8 5.0 98.4 40.1 14.9 59.9 #8 1.8 1.6 84.5 33.8 6.3 66.2 #16 1.6 1.3 65.7 26.4 7.4 73.6 #30 1.2 1.6 45.5 18.5 7.8 81.5 #50 1.5 1.1 21.5 9.2 9.4 90.8 #100 1.4 1.0 4.2 2.4 6.8 97.6

\*Maximum % Retained must be above the 3/8" sieve.

\*Any two adjacent sieves must equal 10% except max.,

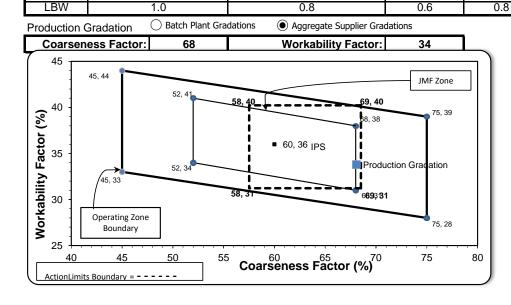
nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production Sample (IPS)

99.2

1.6

Coarseness Factor:		63	
Work	ability Factor:	36	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.2	0.8	0.8
3/4"	90.9	8.3	9.1
1/2"	71.3	19.6	28.7
3/8"	59.5	11.8	40.5
#4	43.8	15.7	56.2
#8	35.7	8.1	64.3
#16	27.0	8.7	73.0
#30	18.6	8.4	81.4
#50	6.8	11.8	93.2
#100	1.4	5.4	98.6
LBW	0.6	0.8	99.4

PREPARED BY: SM, LLC Technical Service Approved By:

**Total Wt** 

6AA

100.0

100.0

100.0

80.2

35.4

12.8

2.8

1.8

1.6

1.6

1.5

1.4

PLANT #: P-103

Sample Date:

Sieve

2"

1.5"

3/4"

1/2'

3/8'

#4

#8

#16

#30

#50

#100

LBW

10/2/23 Concrete Grade: S2M, 3500HP

18.58

Dates Test F	Represents:	10/3/2023	through	10/9/2023		
Agg. Class	Pit#	Source	Weight (SSD)	ft <sup>3</sup>	Specific	%
Agg. Oldss		oouroc	Weight (OOD)		Gravity	Contribution
6AA	58-003	Stoneco	1550	9.23	2.69	50.0
26A	58-003	Stoneco	350	2.09	2.69	11.3
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7

26A

100.0

100.0

100.0

100.0

98.6

87.0

5.0

1.6

1.3

1.2

1.1

1.0

0.8

3100

Contractor:

Cumulative

% Retained

0.0

0.0

9.9

32.5

45.1

59.9

66.2

73.6

81.5

90.8

97.6

MDOT No.:

% Retained

0.0

0.0

0.0

9.9

22.6

12.6

14.9

6.3

7.4

7.8

9.4

6.8

1.6

100.0

Cumulative

% Passing

100.0

100.0

100.0

90.1

67.5

54.9

40.1

33.8

26.4

18.5

9.2

2.4

0.8

2NS

100.0

100.0

100.0

100.0

100.0

100.0

98.4

84.5

65.7

45.5

21.5

4.2

----- Verify this number is 100%

SUPERIOR MATERIALS
Superior Materials, LLC

Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

*Maximum % Retained mus

st be above the 3/8" sieve.

\*Any two adjacent sieves must equal 10% except max.,

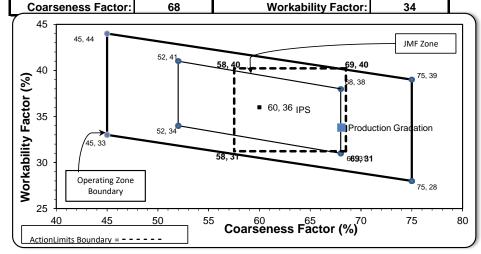
nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.

O Batch Plant Gradations Aggregate Supplier Gradations **Production Gradation** 



Intial Production Sample (IPS)

Coarseness Factor:		63	
Work	Workability Factor:		
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.2	0.8	8.0
3/4"	90.9	8.3	9.1
1/2"	71.3	19.6	28.7
3/8"	59.5	11.8	40.5
#4	43.8	15.7	56.2
#8	35.7	8.1	64.3
#16	27.0	8.7	73.0
#30	18.6	8.4	81.4
#50	6.8	11.8	93.2
#100	1.4	5.4	98.6
LBW	0.6	0.8	99.4

PREPARED BY: SM, LLC Technical Service Approved BY:

**PLANT #:** Contractor: 10/2/23 Concrete Grade: S2M, 3500HP Sample Date:

Dates Test Represents:		10/3/2023	through	10/9/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1500	8.94	2.69	48.2
26A	58-003	Stoneco	400	2.38	2.69	12.9
2NS	19-04	Schlegel	1210	7.26	2.67	38.9

MDOT No.:

## **Builders Redi-Mix**

30701 W. 10 Mile Rd. Suite 500

Farmington Hills, MI 48336

	Total Wt	3110	18.58		100.0	< Verify this n	umber is 100%
Sieve	6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100	0.0	100.0	100.0	0.0	0.0
1.5"	100.0	100	0.0	100.0	100.0	0.0	0.0
1"	100.0	100	0.0	100.0	100.0	0.0	0.0
3/4"	80.2	100	0.0	100.0	90.5	9.5	9.5
1/2"	35.4	98	.6	100.0	68.7	21.8	31.3
3/8"	12.8	87	.0	100.0	56.3	12.4	43.7
#4	2.8	5.	0	99.9	40.9	15.4	59.1
#8	1.8	1.	6	90.1	36.1	4.7	63.9
#16	1.6	1.	3	69.4	27.9	8.2	72.1
#30	1.6	1.	2	44.5	18.2	9.7	81.8
#50	1.5	1.	1	14.3	6.4	11.8	93.6
#100	1.4	1.	0	2.7	1.9	4.6	98.1
LBW	1.0	0.	8	0.2	0.7	1.2	99.3

\*Maximum % Retained must be above the 3/8" sieve.

\*Any two adjacent sieves must equal 10% except max.,

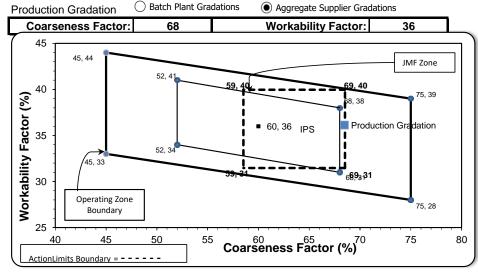
nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production Sample (IPS)

Coars	eness Factor:	64	
Work	ability Factor:	36	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.2	0.8	0.8
3/4"	90.9	8.3	9.1
1/2"	71.3	19.6	28.7
3/8"	59.2	12.1	40.8
#4	41.5	17.7	58.5
#8	35.7	5.8	64.3
#16	27.9	7.9	72.1
#30	18.3	9.5	81.7
#50	7.3	11.0	92.7
#100	2.0	5.3	98.0
LBW	0.9	1.1	99.1

PREPARED BY: SM, LLC Technical Service Approved By:

**PLANT #:** 12

Sample Date:

LBW

10/2/23 Concrete Grade: S2M, 3500HP

Dates Test F	Represents:	10/3/2023	through	10/9/2023		
Agg. Class	Pit#	Source	Weight (SSD)	ft <sup>3</sup>	Specific	%
Agg. Class	110#	Source	Weight (33b)	11	Gravity	Contribution
6AA	71-47	Presque Isle	1550	9.48	2.62	50.8
26A	71-47	Presque Isle	270	1.65	2.62	8.9
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
Total Wt			3050	18.57		100.0

Contractor:

MDOT No.:

---- Verify this number is 100%

<b>Superior Materials, LLC</b>
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	99.1	100.0	100.0	99.5	0.5	0.5
3/4"	75.6	100.0	100.0	87.6	11.9	12.4
1/2"	33.6	93.0	100.0	65.6	22.0	34.4
3/8"	16.6	81.5	100.0	56.0	9.7	44.0
#4	2.7	19.2	96.5	42.0	14.0	58.0
#8	2.2	4.6	80.9	34.2	7.8	65.8
#16	2.0	2.4	65.6	27.7	6.5	72.3
#30	1.9	1.9	48.7	20.8	6.9	79.2
#50	1.9	1.8	24.4	11.0	9.8	89.0
#100	1.8	1.7	5.7	3.4	7.6	96.6

1.5

0.7

1.1

\*Maximum % Retained must be above the 3/8" sieve.

\*Any two adjacent sieves must equal 10% except max.,

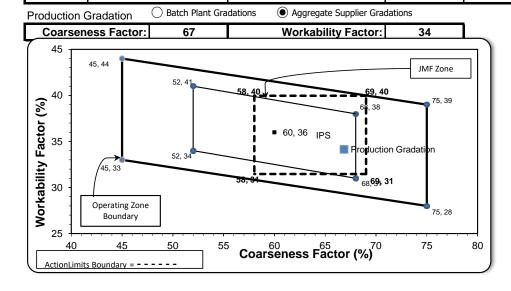
nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production Sample (IPS)

98.9

Coars	eness Factor:	64	
Work	ability Factor:	36	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.2	0.8	8.0
3/4"	90.9	8.3	9.1
1/2"	71.3	19.6	28.7
3/8"	59.2	12.1	40.8
#4	41.5	17.7	58.5
#8	35.7	5.8	64.3
#16	27.9	7.9	72.1
#30	18.3	9.5	81.7
#50	7.3	11.0	92.7
#100	2.0	5.3	98.0
LBW	0.9	1.1	99.1

PREPARED BY: SM, LLC Technical Service

1.4

**PLANT #:** 20

Sample Date:

#100

LBW

10/2/23 Concrete Grade: S2M, 3500HP

Dates Test F	Represents:	10/3/2023	through	10/9/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1600	9.79	2.62	52.5
26A	71-47	Presque Isle	200	1.22	2.62	6.6
2NS	63-92	Grange Hall	1250	7.56	2.65	41.0

0.8

Contractor:

MDOT No.:

Agg. Class	Pit#	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1600	9.79	2.62	52.5
26A	71-47	Presque Isle	200	1.22	2.62	6.6
2NS	63-92	Grange Hall	1250	7.56	2.65	41.0
		Total Wt	3050	18.57		100.0

---- Verify this number is 100%

SUPERIOR MATERIALS

**Superior Materials, LLC** 30701 W. 10 Mile Rd. Suite 500 Farmington Hills, MI 48336

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	96.3	100.0	100.0	98.1	1.9	1.9
3/4"	80.1	100.0	100.0	89.6	8.5	10.4
1/2"	37.3	90.1	100.0	66.5	23.1	33.5
3/8"	21.6	73.8	100.0	57.2	9.3	42.8
#4	2.2	9.9	97.5	41.8	15.4	58.2
#8	1.4	2.0	83.3	35.0	6.8	65.0
#16	1.3	1.1	69.0	29.0	6.0	71.0
#30	1.3	0.9	50.2	21.3	7.7	78.7
#50	1.2	0.8	19.9	8.8	12.5	91.2

2.7

0.4

1.8

0.7

\*Maximum % Retained must be above the 3/8" sieve.

\*Any two adjacent sieves must equal 10% except max.,

nom. max., #100 and #200 sieves.

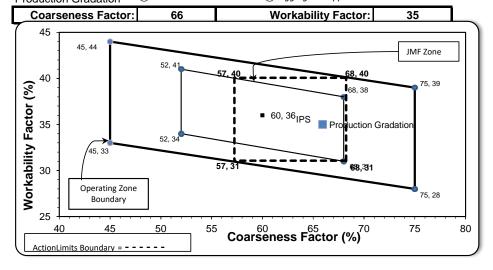
\*% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Prod	luction Gradation	Batch Plant Gradations	Aggregate Supplier Gradations

1.2



Intial Production Sample (IPS)

7.0

98.2

99.3

Coars	eness Factor:	63	
Work	Workability Factor:		
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	100.0	0.0	0.0
3/4"	93.3	6.7	6.7
1/2"	70.6	22.6	29.4
3/8"	59.6	11.0	40.4
#4	43.9	15.7	56.1
#8	35.6	8.4	64.4
#16	28.4	7.2	71.6
#30	19.4	9.0	80.6
#50	7.5	11.9	92.5
#100	0.9	6.6	99.1
LBW	0.9	0.1	99.1

Total Wt

**PLANT #:** p11

Sample Date:

10/2/23 Concrete Grade: S2M, 3500HP

Dates Test Represents:		10/3/2023	through	10/9/2023		
∖gg. Class	Pit#	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1500	9.17	2.62	49.2
26A	71-47	Presque Isle	320	1.96	2.62	10.5
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3

Contractor:

MDOT No.:

	IVIL
%	
tribution	
49.2	
10.5	
40.3	

Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

	i otai vvt	3030 16.37		100.0	< verity this n	umber is 100%
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	97.7	100.0	100.0	98.9	1.1	1.1
3/4"	74.5	100.0	100.0	87.5	11.4	12.5
1/2"	38.5	93.0	100.0	69.0	18.4	31.0
3/8"	26.0	81.5	100.0	61.7	7.4	38.3
#4	6.3	19.2	96.5	44.0	17.6	56.0
#8	3.4	4.6	85.4	36.6	7.4	63.4
#16	3.0	2.4	71.0	30.4	6.2	69.6
#30	2.8	1.9	50.9	22.1	8.3	77.9
#50	2.7	1.8	24.5	11.4	10.7	88.6
#100	2.5	1.7	7.4	4.4	7.0	95.6
LBW	1.8	1.5	1.1	1.5	2.9	98.5

\*Maximum % Retained must be above the 3/8" sieve.

\*Any two adjacent sieves must equal 10% except max.,

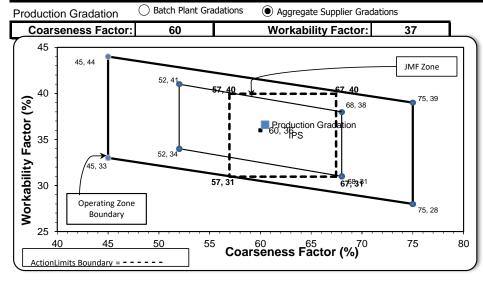
nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production Sample (IPS)

Coars	eness Factor:	62	
Work	ability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	100.0	0.0	0.0
3/4"	94.0	6.0	6.0
1/2"	70.2	23.7	29.8
3/8"	59.9	10.4	40.1
#4	42.7	17.2	57.3
#8	35.5	7.2	64.5
#16	28.4	7.0	71.6
#30	19.2	9.2	80.8
#50	8.9	10.3	91.1
#100	3.1	5.9	96.9
LBW	1.4	1.7	98.6

PLANT #: P-32

Sample Date:

Concrete Grade: S2M, 3500HP 10/2/23

Dates Test F	Represents:	10/3/2023	through	10/9/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1500	9.17	2.62	49.2
26A	71-47	Presque Isle	320	1.96	2.62	10.5
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3

Contractor:

MDOT No.:



Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

Sieve         6AA         26A         2NS         Cumul % Pas           2"         100.0         100.0         100.0         100.0	% Retained	Cumulative % Retained
3" 100.0 100.0 100.0 100.0		,
2"   100.0   100.0   100.0   100.0	0.0	0.0
1.5" 100.0 100.0 100.0 100	0.0	0.0
1" 97.7 100.0 100.0 98.	.9 1.1	1.1
3/4" 74.5 100.0 100.0 87.	.5 11.4	12.5
1/2" 38.5 93.0 100.0 69.	.0 18.4	31.0
3/8" 26.0 81.5 100.0 61.	.7 7.4	38.3
#4 6.3 19.2 96.5 44.	.0 17.6	56.0
#8 3.4 4.6 85.4 36.	.6 7.4	63.4
<b>#16</b> 3.0 2.4 71.0 30.	.4 6.2	69.6
#30 2.8 1.9 50.9 22.	.1 8.3	77.9
#50 2.7 1.8 24.5 11.	.4 10.7	88.6
#100 2.5 1.7 7.4 4.4	4 7.0	95.6
LBW 1.8 1.5 1.1 1.5	5 2.9	98.5

\*Maximum % Retained must be above the 3/8" sieve.

\*Any two adjacent sieves must equal 10% except max.,

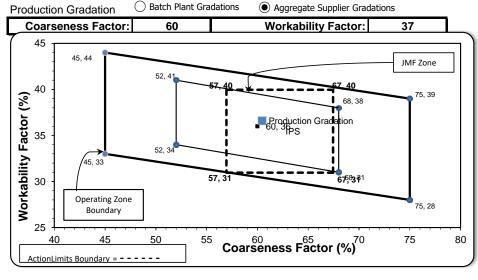
nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production Sample (IPS)

Coars	eness Factor:	62	
Workability Factor:		35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	100.0	0.0	0.0
3/4"	94.0	6.0	6.0
1/2"	70.2	23.7	29.8
3/8"	59.9	10.4	40.1
#4	42.7	17.2	57.3
#8	35.5	7.2	64.5
#16	28.4	7.0	71.6
#30	19.2	9.2	80.8
#50	8.9	10.3	91.1
#100	3.1	5.9	96.9
LBW	1.4	1.7	98.6

PLANT #: P-35

Sample Date:

10/2/23 Concrete Grade: **S2M, 3500HP** 

Dates Test F	Represents:	10/3/2023	through	10/9/2023		
Agg. Class	Pit#	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1550	9.23	2.69	50.0
26A	58-003	Stoneco	350	2.09	2.69	11.3
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7
		Total Wt	3100	18.58		100.0

Contractor:

MDOT No.:



---- Verify this number is 100%

Cumulative % Retained	Superior Materials, LLC
0.0	Suite 500
0.0	Farmington Hills, MI 48336

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	80.2	100.0	100.0	90.1	9.9	9.9
1/2"	35.4	98.6	100.0	67.5	22.6	32.5
3/8"	12.8	87.0	100.0	54.9	12.6	45.1
#4	2.8	5.0	98.4	40.1	14.9	59.9
#8	1.8	1.6	84.5	33.8	6.3	66.2
#16	1.6	1.3	65.7	26.4	7.4	73.6
#30	1.6	1.2	45.5	18.5	7.8	81.5
#50	1.5	1.1	21.5	9.2	9.4	90.8
#100	1.4	1.0	4.2	2.4	6.8	97.6
LBW	1.0	0.8	0.6	0.8	1.6	99.2

\*Maximum % Retained must be above the 3/8" sieve.

\*Any two adjacent sieves must equal 10% except max.,

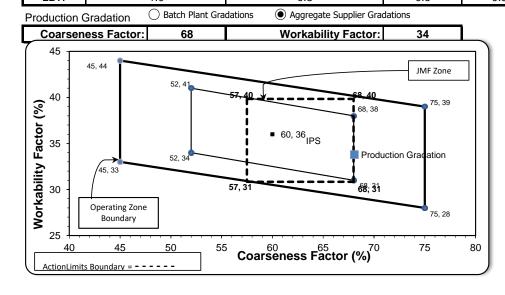
nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production Sample (IPS)

Coars	eness Factor:	63	
Work	ability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.2	0.8	0.8
3/4"	90.9	8.3	9.1
1/2"	71.3	19.6	28.7
3/8"	59.4	11.9	40.6
#4	43.0	16.5	57.0
#8	35.3	7.6	64.7
#16	28.2	7.1	71.8
#30	21.6	6.6	78.4
#50	9.1	12.5	90.9
#100	1.7	7.4	98.3
LBW	1.1	0.6	98.9

PREPARED BY: SM, LLC Technical Service Approved By

PLANT #: P-36

Sample Date:

10/2/23 Concrete Grade: S2M, 3500HP

Dates Test F	Represents:	10/3/2023	through	10/9/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1500	9.17	2.62	49.2
26A	71-47	Presque Isle	350	2.14	2.62	11.5
2NS	63-92	Grange Hall	1200	7.26	2.65	39.3

Contractor:

MDOT No.:



Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

	Total Wt	3050	18.57		100.0	< Verify this n	umber is 100%
Sieve	6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100	0.0	100.0	100.0	0.0	0.0
1.5"	100.0	100	0.0	100.0	100.0	0.0	0.0
1"	99.1	100	0.0	100.0	99.6	0.4	0.4
3/4"	75.6	100	0.0	100.0	88.0	11.6	12.0
1/2"	33.6	93	.0	100.0	66.5	21.5	33.5
3/8"	16.6	81	.5	100.0	56.9	9.7	43.1
#4	2.7	19	.2	97.5	41.9	15.0	58.1
#8	2.2	4.	6	83.3	34.4	7.5	65.6
#16	2.0	2.	4	69.0	28.4	6.0	71.6
#30	1.9	1.	9	50.2	20.9	7.5	79.1
#50	1.9	1.	8	19.9	9.0	11.9	91.0
#100	1.8	1.	7	2.7	2.1	6.8	97.9
LBW	1.4	1.	5	0.4	1.0	1.1	99.0
•	•		•	•		•	•

\*Maximum % Retained must be above the 3/8" sieve.

\*Any two adjacent sieves must equal 10% except max.,

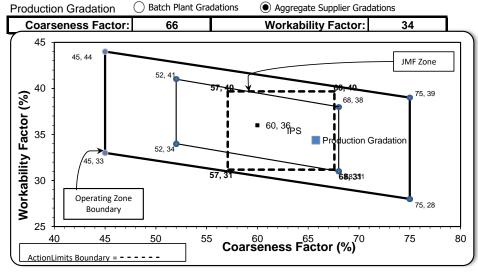
nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production Sample (IPS)

Coarseness Factor:		62	
Work	ability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.1	0.9	0.9
3/4"	90.5	8.6	9.5
1/2"	69.8	20.7	30.2
3/8"	59.8	10.0	40.2
#4	42.2	17.6	57.8
#8	35.4	6.7	64.6
#16	28.8	6.7	71.2
#30	21.4	7.4	78.6
#50	8.8	12.6	91.2
#100	1.8	7.0	98.2
LBW	0.7	1.0	99.3

**PLANT #:** P-38

Sample Date:

10/2/23 Concrete Grade: S2M, 3500HP

Dates Test Represents:		10/3/2023	through	10/9/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1550	9.23	2.69	50.0
26A	58-003	Stoneco	350	2.09	2.69	11.3
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7
Total Wt			3100	18.58		100.0

Contractor:

MDOT No.:



--- Verify this number is 100%

MATERIALS
Superior Materials, LLC
30701 W. 10 Mile Rd.
Cuito FOO

Su	perior Materials, LLC
30	701 W. 10 Mile Rd.
Sui	te 500
Far	mington Hills, MI 48336

	1000.111				1 Voiny and named to 10070	
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	80.2	100.0	100.0	90.1	9.9	9.9
1/2"	35.4	98.6	100.0	67.5	22.6	32.5
3/8"	12.8	87.0	100.0	54.9	12.6	45.1
#4	2.8	5.0	98.4	40.1	14.9	59.9
#8	1.8	1.6	84.5	33.8	6.3	66.2 r
#16	1.6	1.3	65.7	26.4	7.4	73.6
#30	1.6	1.2	45.5	18.5	7.8	81.5 r
#50	1.5	1.1	21.5	9.2	9.4	90.8
#100	1.4	1.0	4.2	2.4	6.8	97.6 a
LBW	1.0	0.8	0.6	0.8	1.6	99.2

\*Maximum % Retained must be above the 3/8" sieve.

\*Any two adjacent sieves must equal 10% except max.,

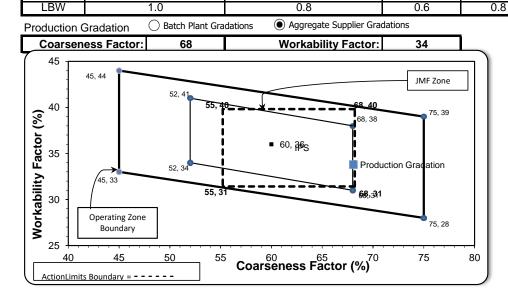
nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



## Intial Production Sample (IPS)

Coarseness Factor:		62	
Work	ability Factor:	36	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.2	0.8	0.8
3/4"	91.1	8.1	8.9
1/2"	72.0	19.1	28.0
3/8"	60.3	11.7	39.7
#4	43.4	16.9	56.6
#8	35.6	7.8	64.4
#16	28.4	7.2	71.6
#30	21.8	6.7	78.2
#50	9.1	12.6	90.9
#100	1.7	7.4	98.3
LBW	1.1	0.6	98.9

PLANT #: P-39

Sample Date:

10/2/23 Concrete Grade: **S2M**, **3500HP** 

Dates Test Represents:		10/3/2023	through	10/9/2023		
Agg. Class	Pit#	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1500	9.17	2.62	49.2
26A	71-47	Presque Isle	300	1.83	2.62	9.8
2NS	44-051	Krake Willis Rd	1250	7.56	2.65	41.0
Total Wt			3050	18.57		100.0

MDOT No.:

Contractor:



<---- Verify this number is 100%

ined	Cumulative % Retained	Superior Materials, LLC
	0.0	Suite 500
	0.0	Farmington Hills, MI 48336

Cumulative 6AA 26A % Retail Sieve 2NS % Passing 2" 100.0 100.0 100.0 100.0 0.0 1.5" 100.0 100.0 100.0 100.0 0.0 0.0 98.5 100.0 100.0 99.3 0.7 0.7 3/4" 79.4 100.0 100.0 89.9 9.4 10.1 1/2' 36.1 94.6 100.0 68.0 21.8 32.0 3/8' 84.1 100.0 58.9 9.1 19.6 41.1 #4 3.4 20.2 98.9 44.2 14.7 55.8 #8 2.4 4.6 84.6 36.3 7.9 63.7 #16 2.2 2.3 68.9 29.5 6.8 70.5 #30 21.6 8.0 78.4 2.1 1.8 49.7 #50 2.0 1.7 23.8 10.9 10.7 89.1 #100 1.9 1.6 6.5 3.8 7.1 96.2 LBW 1.6

\*Maximum % Retained must be above the 3/8" sieve.

\*Any two adjacent sieves must equal 10% except max.,

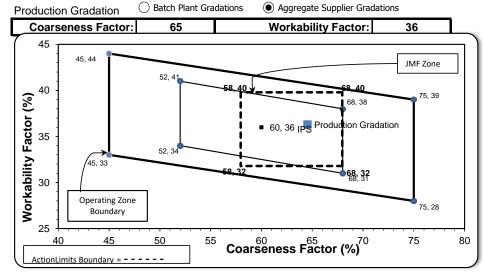
nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production Sample (IPS)

Coarseness Factor:		63	
Workability Factor:		36	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	100.0	0.0	0.0
3/4"	89.8	10.2	10.2
1/2"	70.7	19.1	29.3
3/8"	59.6	11.1	40.4
#4	43.2	16.4	56.8
#8	35.8	7.4	64.2
#16	29.2	6.6	70.8
#30	21.4	7.8	78.6
#50	9.8	11.6	90.2
#100	3.7	6.1	96.3
LBW	1.2	2.5	98.8

PLANT #: P-O2

Sample Date:

10/2/23 Concrete Grade: **S2M**, **3500HP** 

Dates Test Represents:		10/3/2023	through	10/9/2023		
Agg. Class	Pit#	Source	Weight (SSD)	ft <sup>3</sup>	Specific	%
Ayy. Class	FIL#	Source	Weight (SSD)		Gravity	Contribution
6AA	71-47	Presque Isle	1550	9.48	2.62	50.8
26A	71-47	Presque Isle	270	1.65	2.62	8.9
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
		Total Wt	3050	18.57		100.0

Contractor:

MDOT No.:



---- Verify this number is 100%

Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	99.1	100.0	100.0	99.5	0.5	0.5
3/4"	75.6	100.0	100.0	87.6	11.9	12.4
1/2"	33.6	93.0	100.0	65.6	22.0	34.4
3/8"	16.6	81.5	100.0	56.0	9.7	44.0
#4	2.7	19.2	96.5	42.0	14.0	58.0
#8	2.2	4.6	80.9	34.2	7.8	65.8
#16	2.0	2.4	65.6	27.7	6.5	72.3
#30	1.9	1.9	48.7	20.8	6.9	79.2
#50	1.9	1.8	24.4	11.0	9.8	89.0
#100	1.8	1.7	5.7	3.4	7.6	96.6
I BW	1 4	1.5	0.7	11	2.2	98.9

\*Maximum % Retained must be above the 3/8" sieve.

\*Any two adjacent sieves must equal 10% except max.,

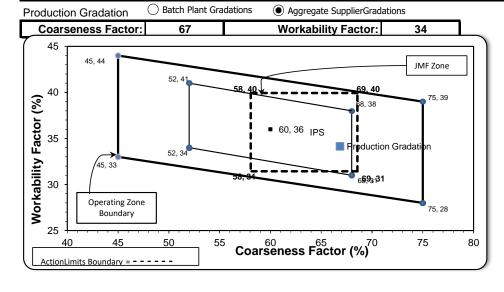
nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

\*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production Sample (IPS)

Coarseness Factor:		63	
Workability Factor:		36	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	100.0	0.0	0.0
3/4"	95.6	4.4	4.4
1/2"	73.1	22.6	26.9
3/8"	59.3	13.8	40.7
#4	42.8	16.5	57.2
#8	35.7	7.1	64.3
#16	28.9	6.8	71.1
#30	20.7	8.2	79.3
#50	9.9	10.8	90.1
#100	2.1	7.8	97.9
LBW	0.9	1.2	99.1

PREPARED BY: SM, LLC Technical Service Approved By