PLANT #: P-101

6AA

100.0

100.0

100.0

85.7

44.3

27.4

3.4

1.6

1.4

Sample Date:

Sieve

2"

1.5"

3/4"

1/2'

3/8'

#4

#8

#16

10/9/23 Concrete Grade: S2M, 3500HP

Dates Test Represents:		10/10/2023	023 through 10/16/2023				
	Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific	%
	Agg. Class	rit#	Source	Weight (SSD)	IL	Gravity	Contribution
	6AA	71-47	Presque Isle	1600	9.79	2.62	52.4
	26A	71-47	Presque Isle	225	1.38	2.62	7.4
	2NS	75-051	Mid Michigan	1230	7.41	2.66	40.3
			Total Wt	3055	18.57		100.0

26A

100.0

100.0

100.0

100.0

95.8

86.8

22.5

5.2

2.4

Coarseness Factor (%) 70

Contractor:

0.0

7.5

29.5

39.0

57.8

66.0

72.0

78.2

88.9

MDOT No.:

% Retained

0.0

0.0

0.0

7.5

22.0

9.5

18.8

8.1

6.0

6.2

10.7

7.7

Cumulative

% Passing

100.0

100.0

100.0

92.5

70.5

61.0

42.2

34.0

28.0

2NS

100.0

100.0

100.0

100.0

100.0

100.0

96.2

81.5

67.4

75, 28

75

80



---- Verify this number is 100%

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

*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

96.6 a 1.5" max. size (nom. Max. 1.0") aggregate is used. 99.0

#30	1.	4	1.8	52.1	21.8
#50	1.	3	1.6	25.6	11.1
#100	1.	3	1.5	6.6	3.4
LBW	1.	1	1.3	0.8	1.0
Production () Batch Plant Gra	O riggi egute supplier eru		
Coarsen	ess Factor:	59	Workability Factor:	34	
rkability Factor (%) 908 109 109 109 109 109 109 109	45, 44 45, 33 Operating Zone	52, 41	59, 30	75, 39	

Initial Production Sample (IPS)

Coars	seness Factor:	64	
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"	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

50

Boundary

ActionLimits Boundary = - - - - -

PLANT #: P-102

Sample Date:

10/9/23 Concrete Grade: **S2M, 3500HP**

And Class Pit # Source Weight (SSD) ft ³	
	% ibution
6AA 58-003 Stoneco 1525 9.09 2.69 4	9.2
26A 58-003 Stoneco 375 2.23 2.69 1	2.1
2NS 81-019 Pleasant Lake 1200 7.26 2.65 3	8.7

Contractor:

MDOT No.:

SUPERIOR	

Superior Materials, LLC 30701 W. 10 Mile Rd. Suite 500

Farmington Hills, MI 48336

	l otal Wt	3100	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"	80.4	100	0.0	100.0	90.4	9.6	9.6
1/2"	35.6	99	.4	100.0	68.2	22.1	31.8
3/8"	12.1	87	.6	100.0	55.3	13.0	44.7
#4	2.0	7.	5	98.8	40.1	15.1	59.9
#8	1.5	2.	5	85.6	34.2	6.0	65.8 r
#16	1.5	2.	2	66.6	26.8	7.4	73.2
#30	1.4	2.	0	45.5	18.5	8.2	81.5 r
#50	1.3	1.	9	20.9	9.0	9.6	91.0
#100	1.2	1.	8	3.4	2.1	6.8	97.9
LBW	0.9	1.	7	0.5	0.8	1.3	99.2

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

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

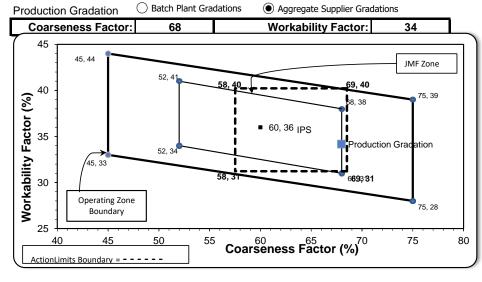
nom. max., #100 and #200 sieves.

 $^{*}\%$ 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:	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

Pleasant Lake

1.2

Total Wt

1200

3100

PLANT #: P-103

Pit#

58-003

58-003

81-019

Sample Date:

Agg. Class

6AA

26A

2NS

#100

Dates Test Represents:

10/9/23 Concrete Grade: S2M, 3500HP

10/10/2023 10/16/2023 through Specific ft³ Source Weight (SSD) Gravity Cont Stoneco 1525 9.09 2.69 Stoneco 375 2.23 2.69

7.26

18.58

2.65

3.4

MDOT No.:

Contractor:

	ML
%	
tribution	
49.2	
12.1	

38.7

100.0

2.1

----- Verify this number is 100%

SUPERIOR

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"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	80.4	100.0	100.0	90.4	9.6	9.6
1/2"	35.6	99.4	100.0	68.2	22.1	31.8
3/8"	12.1	87.6	100.0	55.3	13.0	44.7
#4	2.0	7.5	98.8	40.1	15.1	59.9
#8	1.5	2.5	85.6	34.2	6.0	65.8
#16	1.5	2.2	66.6	26.8	7.4	73.2
#30	1.4	2.0	45.5	18.5	8.2	81.5
#50	1.3	1.9	20.9	9.0	9.6	91.0

1.8

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

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

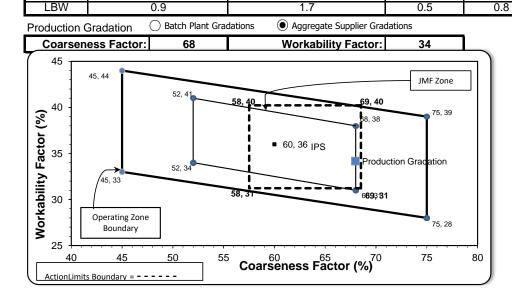
nom. max., #100 and #200 sieves.

*% 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)

97.9

99.2

6.8

Coars	Coarseness Factor:		
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	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:

PLANT #: 12

Sample Date:

10/9/23

Concrete Grade: S2M, 3500HP

Contractor:

MDOT No.:

Dates Test F	Represents:	10/10/2023	through	10/16/2023		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific 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

%	
tribution	
50.8	
8.9	
40.3	

----- Verify this number is 100%

SUPE	RIOR

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

	TOtal VVI	3030 10.37		100.0	< verily tris fi	uniber 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"	96.1	100.0	100.0	98.0	2.0	2.0
3/4"	72.5	100.0	100.0	86.0	12.0	14.0
1/2"	30.7	93.0	100.0	64.2	21.9	35.8
3/8"	16.4	81.5	100.0	55.9	8.3	44.1
#4	3.1	19.2	96.4	42.2	13.7	57.8
#8	2.2	4.6	81.7	34.5	7.7	65.5
#16	1.9	2.4	66.4	28.0	6.5	72.0
#30	1.8	1.9	49.7	21.1	6.8	78.9
#50	1.8	1.8	24.5	11.0	10.2	89.0
#100	1.7	1.7	5.7	3.3	7.6	96.7
LBW	1.2	1.5	0.6	1.0	2.3	99.0

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

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

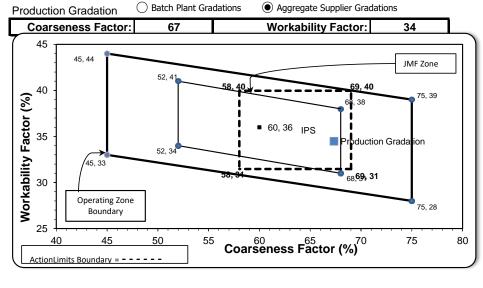
nom. max., #100 and #200 sieves.

*% 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)

Coars	Coarseness Factor:		
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	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 #: 20

Sample Date:

10/9/23 Concrete Grade: S2M, 3500HP

Dates Test F	Represents:	10/10/2023	through	10/16/2023		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific	%
Ayy. Class	FIL#	Source	weight (SSD)	IL.	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

Contractor:

MDOT No.:



---- Verify this number is 100%

į	Cumulative % Retained	
	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"	97.9	100.0	100.0	98.9	1.1	1.1
3/4"	80.1	100.0	100.0	89.6	9.3	10.4
1/2"	42.0	90.1	100.0	68.9	20.6	31.1
3/8"	26.8	73.8	100.0	59.9	9.0	40.1
#4	6.4	9.9	97.6	44.0	15.9	56.0
#8	3.1	2.0	84.0	36.2	7.8	63.8
#16	2.7	1.1	69.4	29.9	6.3	70.1
#30	2.6	0.9	50.7	22.2	7.7	77.8
#50	2.5	0.8	20.4	9.7	12.5	90.3
#100	2.4	0.8	2.9	2.5	7.2	97.5
LBW	2.0	0.7	0.7	1.4	1.1	98.6

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

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

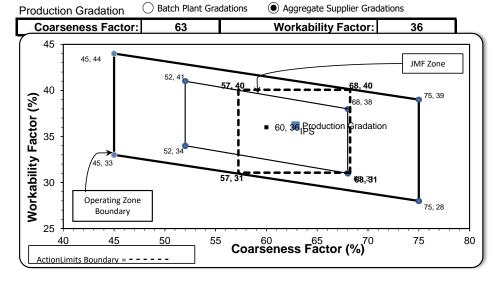
nom. max., #100 and #200 sieves.

*% 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)

Coars	Coarseness Factor:		
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

PLANT #: p11

Sample Date:

Concrete Grade: S2M, 3500HP 10/9/23

Dates Test F	Represents:	10/10/2023	through	10/16/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1400	8.56	2.62	45.9
26A	71-47	Presque Isle	420	2.57	2.62	13.8
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3
·		Total Wt	3050	18.57		100.0

Contractor:

MDOT No.:

%	
tribution	
45.9	
13.8	
40.3	

--- Verify this number is 100%

SUPERIOR
MATERIALS
Superior Materials, LLC
20701 W 10 Mile Pd

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"	97.8	100.0	100.0	99.0	1.0	1.0
3/4"	73.9	100.0	100.0	88.0	11.0	12.0
1/2"	27.8	93.0	100.0	65.9	22.1	34.1
3/8"	13.7	81.5	100.0	57.8	8.1	42.2
#4	2.7	19.2	96.9	43.0	14.9	57.0
#8	2.1	4.6	86.2	36.4	6.6	63.6
#16	2.0	2.4	71.5	30.1	6.3	69.9
#30	1.9	1.9	52.6	22.3	7.7	77.7
#50	1.8	1.8	24.4	10.9	11.4	89.1
#100	1.7	1.7	7.0	3.8	7.1	96.2
I R\//	13	1.5	13	13	2.5	98.7

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

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

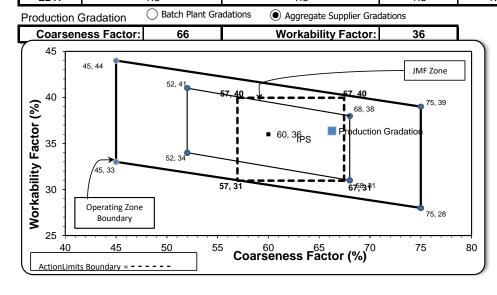
nom. max., #100 and #200 sieves.

*% 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.



Intial Production Sample (IPS)

Coars	Coarseness Factor:		
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-32

Sample Date:

10/9/23 Concrete Grade: **S2M**, **3500HP**

Dates Test F	Represents:	10/10/2023	through	10/16/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1400	8.56	2.62	45.9
26A	71-47	Presque Isle	420	2.57	2.62	13.8
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3
		Total Wt	3050	18.57		100.0

Contractor:

MDOT No.:



---- Verify this number is 100%

tained	Cumulative % Retained	Superior Materials, LLC
.0	0.0	Suite 500
.0	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"	97.8	100.0	100.0	99.0	1.0	1.0
3/4"	73.9	100.0	100.0	88.0	11.0	12.0
1/2"	27.8	93.0	100.0	65.9	22.1	34.1
3/8"	13.7	81.5	100.0	57.8	8.1	42.2
#4	2.7	19.2	96.9	43.0	14.9	57.0
#8	2.1	4.6	86.2	36.4	6.6	63.6
#16	2.0	2.4	71.5	30.1	6.3	69.9
#30	1.9	1.9	52.6	22.3	7.7	77.7
#50	1.8	1.8	24.4	10.9	11.4	89.1
#100	1.7	1.7	7.0	3.8	7.1	96.2
LBW	1.3	1.5	1.3	1.3	2.5	98.7

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

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

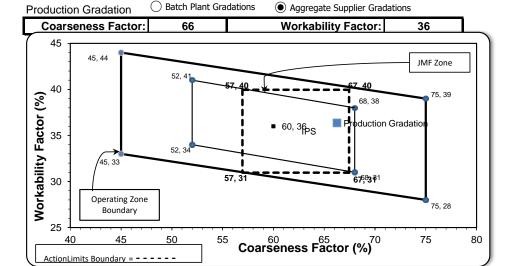
nom. max., #100 and #200 sieves.

*% 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.



Intial Production Sample (IPS)

Coars	Coarseness Factor:		
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"	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

PREPARED BY: SM, LLC Technical Service Approved By

PLANT #: P-35

Sample Date: 10/9/23 Concrete Grade: S2M, 3500HP Dates Test Represents: 10/10/2023 10/16/2023 through

4100 1 001 1	toproconto.	. 07 . 07 = 0 = 0	unougn	10/10/2020		
gg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1525	9.09	2.69	49.2
26A	58-003	Stoneco	375	2.23	2.69	12.1
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7
		Tatal MA	2400	40 E0		100.0

Contractor:

MDOT No.:



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

	i otai wt	3100	18.58		100.0	< Verify 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"	100.0	100.0)	100.0	100.0	0.0	0.0
3/4"	80.4	100.0)	100.0	90.4	9.6	9.6
1/2"	35.6	99.4		100.0	68.2	22.1	31.8
3/8"	12.1	87.6		100.0	55.3	13.0	44.7
#4	2.0	7.5		98.8	40.1	15.1	59.9
#8	1.5	2.5		85.6	34.2	6.0	65.8
#16	1.5	2.2		66.6	26.8	7.4	73.2
#30	1.4	2.0		45.5	18.5	8.2	81.5
#50	1.3	1.9		20.9	9.0	9.6	91.0
#100	1.2	1.8	_	3.4	2.1	6.8	97.9
LBW	0.9	1.7		0.5	0.8	1.3	99.2

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

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

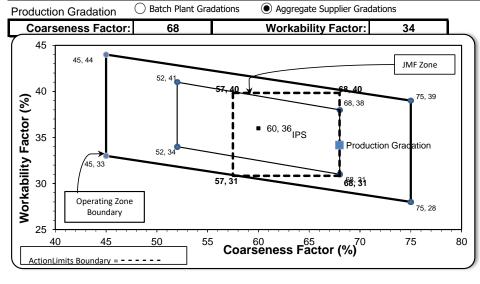
nom. max., #100 and #200 sieves.

*% 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	Coarseness Factor:		
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	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

Total Wt

6AA

100.0

100.0 96.1

72.5

30.7

16.4

3.1

2.2

1.9

1.8

1.8

1.7

PLANT #: P-36

Sample Date:

Sieve

2"

1.5"

3/4"

1/2'

3/8'

#4

#8

#16

#30

#50

#100

10/9/23 Concrete Grade: S2M, 3500HP

Dates Test F	represents:	10/10/2023	tnrougn	10/16/2023		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific	% Contribution
riggi Giaco		000.00	rroigint (002)		" Gravity	
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

1.7

Contractor:

MDOT No.:

3050	18.57		100.0	< Verify this number is 100%		
26	6A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
100	0.0	100.0	100.0	0.0	0.0	
100	0.0	100.0	100.0	0.0	0.0	
100	100.0 100.0 98.1		1.9	1.9		
100.0		100.0 100.0 86.5 11.6		13.5		
93	3.0	100.0	65.1	21.4	34.9	
81	.5	100.0	56.8	8.4	43.2	*Ma
19).2	97.6	42.1	14.6	57.9	*Ar
4.	.6	84.0	34.7	7.5	65.3	nom
2.4		69.4	28.5	6.1	71.5	*%
1.	.9	50.7	21.1	7.5	78.9	nom
1.	.8	20.4	9.1	11.9	90.9	*%

2.2

2.9



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

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

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

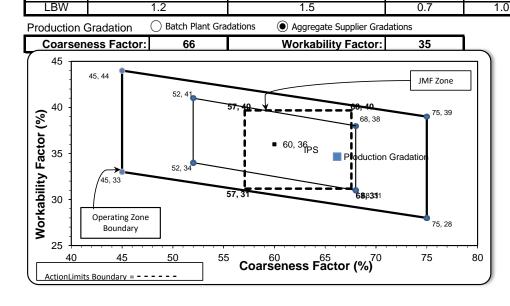
m. max., #100 and #200 sieves.

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

m. 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)

97.8

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

Total Wt

10/9/23

PLANT #: P-38

Sample Date:

#100

Concrete Grade: S2M, 3500HP

Dates Test F	ates Test Represents: 10/10/202		through	10/16/2023		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1525	9.09	2.69	49.2
26A	58-003	Stoneco	375	2.23	2.69	12.1
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7

3100

Contractor:

MDOT No.:

100.0

2.1

3.4



---- Verify this number is 100%

Retained	Cumulative % Retained	
	,01101011100	

Suite 500 Farmington Hills, MI 48336

<u>Superior Materials, LLC</u> 30701 W. 10 Mile Rd.

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"	80.4	100.0	100.0	90.4	9.6	9.6
1/2"	35.6	99.4	100.0	68.2	22.1	31.8
3/8"	12.1	87.6	100.0	55.3	13.0	44.7
#4	2.0	7.5	98.8	40.1	15.1	59.9
#8	1.5	2.5	85.6	34.2	6.0	65.8
#16	1.5	2.2	66.6	26.8	7.4	73.2
#30	1.4	2.0	45.5	18.5	8.2	81.5
#50	1.3	1.9	20.9	9.0	9.6	91.0

1.8

18.58

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

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

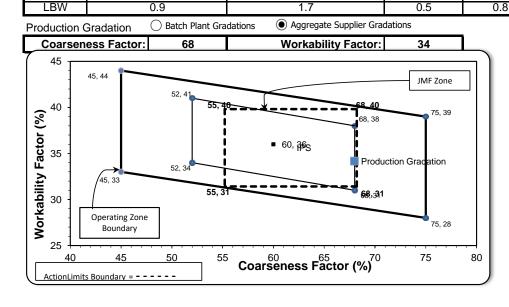
nom. max., #100 and #200 sieves.

*% 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)

97.9

99.2

6.8

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

PREPARED BY: SM, LLC Technical Service

1.2

Approved By

Total Wt

PLANT #: P-39

Sample Date:

10/9/23 Concrete Grade: S2M, 3500HP

18.57

_[Dates Test F	Represents:	10/10/2023	through	10/16/2023		
	Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
I	6AA	71-47	Presque Isle	1525	9.33	2.62	50.0
	26A	71-47	Presque Isle	275	1.68	2.62	9.0
ſ	2NS	44-051	Krake Willis Rd	1250	7.56	2.65	41.0

3050

Contractor:

MDOT No.:



----- Verify this number is 100%

SUI		

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"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	85.7	100.0	100.0	92.9	7.2	7.2
1/2"	44.3	95.8	100.0	71.8	21.1	28.2
3/8"	27.4	86.8	100.0	62.5	9.3	37.5
#4	3.4	22.5	98.9	44.3	18.2	55.7
#8	1.6	5.2	84.6	35.9	8.3	64.1
#16	1.4	2.4	68.9	29.2	6.8	70.8
#30	1.4	1.8	49.7	21.2	7.9	78.8
#50	1.3	1.6	23.8	10.5	10.7	89.5
#100	1.3	1.5	6.5	3.4	7.1	96.6
LBW	1.1	1.3	1.6	1.3	2.1	98.7

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

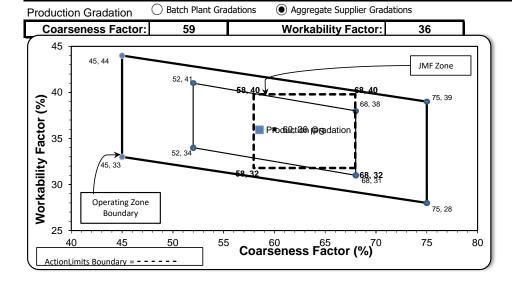
*Any two adjacent sieves must equal 10% except max.,

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.



Intial Production Sample (IPS)

Coarseness Factor:		63	
Worl	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"	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

Ray Rd **Total Wt**

3050

PLANT #: P-02

Pit#

71-47

71-47

63-115

Sample Date:

Agg. Class

6AA

26A

2NS

Dates Test Represents:

10/9/23 Concrete Grade: S2M, 3500HP

10/10/2023 Source Presque Isle

18.57

10/10/2023	through	10/16/2023		
Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
Presque Isle	1550	9.48	2.62	50.8
Presque Isle	270	1.65	2.62	8.9
Ray Rd	1230	7.44	2.65	40.3

Contractor:

MDOT No.:



---- Verify this number is 100%

ined	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"	96.1	100.0	100.0	98.0	2.0	2.0
3/4"	72.5	100.0	100.0	86.0	12.0	14.0
1/2"	30.7	93.0	100.0	64.2	21.9	35.8
3/8"	16.4	81.5	100.0	55.9	8.3	44.1
#4	3.1	19.2	96.4	42.2	13.7	57.8
#8	2.2	4.6	81.7	34.5	7.7	65.5
#16	1.9	2.4	66.4	28.0	6.5	72.0
#30	1.8	1.9	49.7	21.1	6.8	78.9
#50	1.8	1.8	24.5	11.0	10.2	89.0
#100	1.7	1.7	5.7	3.3	7.6	96.7
LBW	1.2	1.5	0.6	1.0	2.3	99.0

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

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

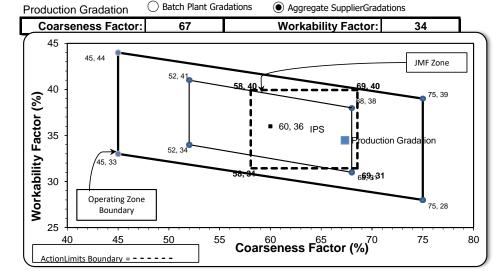
nom. max., #100 and #200 sieves.

*% 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)

Coars	eness 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"	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