Sample Date:

LBW

30

12/19/22 Concrete Grade: S2M, 3500HP

Dates Test Represents:		12/20/2022	through	12/26/2022		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific	%
Ayy. Class	FIL#	Source	Weight (SSD)	11.	Gravity	Contribution
6AA	71-47	Presque Isle	1520	9.30	2.62	49.8
26A	71-47	Presque Isle	305	1.87	2.62	10.0
2NS	75-051	Mid Michigan	1230	7.41	2.66	40.3
		Total Wt	3055	18.57		100.0

Contractor:

MDOT No.:



---- Verify this number is 100%

ed	Cumulative	
	% Retained	30701 W. 10 Mile Rd.
	0.0	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	ı
1.5"	100.0	100.0	100.0	100.0	0.0	0.0	i
1"	95.8	100.0	100.0	97.9	2.1	2.1	l
3/4"	76.2	100.0	100.0	88.2	9.8	11.8	i
1/2"	34.2	97.4	100.0	67.0	21.2	33.0	ı
3/8"	16.6	87.4	100.0	57.2	9.8	42.8	*
#4	2.6	18.8	97.7	42.5	14.7	57.5	*,
#8	1.7	3.9	81.3	34.0	8.5	66.0	no
#16	1.5	2.0	65.7	27.4	6.6	72.6	*
#30	1.5	1.7	49.4	20.8	6.6	79.2	no
#50	1.5	1.6	26.5	11.6	9.2	88.4	*
#100	1.4	1.5	8.2	4.1	7.4	95.9	a 2

75, 28

75

80

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

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

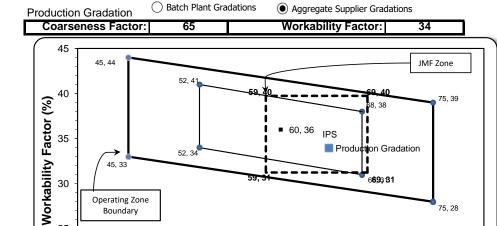
nom. max., #100 and #200 sieves.

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

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Coarseness Factor (%)⁷⁰

Initial Production Sample (IPS)

98.6

Coarseness Factor:		64	
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"	93.9	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

55

45, 33

Operating Zone

Boundary

ActionLimits Boundary = - - - -

Approved By:

Sample Date:

12/19/22 Concrete Grade: S2M, 3500HP

Dates Test F	represents:	12/20/2022	tnrougn	12/26/2022		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1570	9.35	2.69	50.6
26A	58-003	Stoneco	330	1.97	2.69	10.6
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7

Contractor:

MDOT No.:



ained	Cumulative % Retained	Superior Materials, LLC

Suite 500

Farmington Hills, MI 48336

	Total Wt	3100	18.58		100.0	< Verify this n	umber is 100%
Sieve	6AA	26	6 A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	10	0.0	100.0	100.0	0.0	0.0
1.5"	100.0	10	0.0	100.0	100.0	0.0	0.0
1"	99.8	10	0.0	100.0	99.9	0.1	0.1
3/4"	85.7	10	0.0	100.0	92.8	7.1	7.2
1/2"	49.5	99	9.3	100.0	74.3	18.4	25.7
3/8"	21.7	89	9.9	100.0	59.3	15.1	40.7
#4	5.4	6	.9	97.4	41.2	18.1	58.8
#8	2.9	2	.0	83.5	34.0	7.2	66.0
#16	2.3	1	.7	67.0	27.3	6.7	72.7
#30	2.6	1	.5	49.7	20.7	6.6	79.3
#50	2.3	1	.4	24.2	10.7	10.0	89.3
#100	2.1	1	.3	6.9	3.9	6.8	96.1
LBW	1.5	1	.2	1.8	1.6	2.3	98.4

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

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

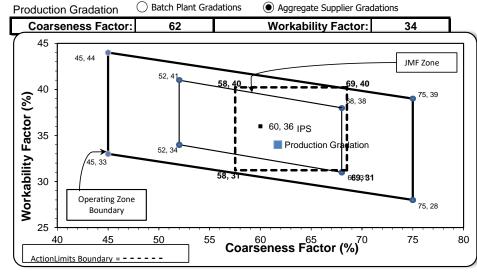
nom. max., #100 and #200 sieves.

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

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") 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"	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

Total Wt

PLANT #: P-103

Sample Date:

#50

#100

12/19/22 Concrete Grade: **S2M**, **3500HP**

18.58

Dates Test Represents: 12/20/2022 12/26/2022 through Specific ft³ Agg. Class Pit# Source Weight (SSD) Gravity Contribution 6AA 58-003 Stoneco 1570 9.35 2.69 50.6 26A 58-003 Stoneco 330 1.97 2.69 10.6 2NS 81-019 Pleasant Lake 1200 7.26 2.65 38.7

1.4

1.3

3100

Contractor:

MDOT No.:

0.6 0.6

100.0

10.7

3.9

<---- Verify this number is 100%

ained	Cumulative % Retained	<u>Superior Materials, LLC</u> 30701 W. 10 Mile Rd.
0	0.0	Suite 500
0	0.0	Farmington Hills, MI 48336
	• •	

Sieve	6AA	26A	2NS	% 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"	99.8	100.0	100.0	99.9	0.1	0.1
3/4"	85.7	100.0	100.0	92.8	7.1	7.2
1/2"	49.5	99.3	100.0	74.3	18.4	25.7
3/8"	21.7	89.9	100.0	59.3	15.1	40.7
#4	5.4	6.9	97.4	41.2	18.1	58.8
#8	2.9	2.0	83.5	34.0	7.2	66.0
#16	2.3	1.7	67.0	27.3	6.7	72.7
#30	26	1.5	49 7	20.7	6.6	79.3

24.2

6.9

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

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

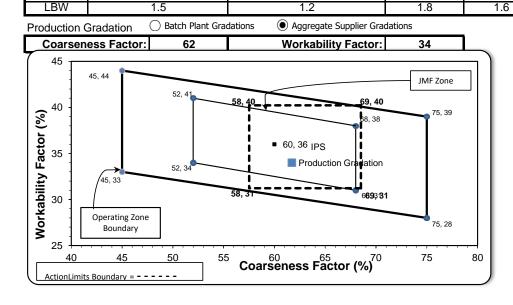
nom. max., #100 and #200 sieves.

 $\ensuremath{^{*}\%}$ Retained must be at least 4% for each sieve except max.,

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

89.3

96.1

98.4

10.0

6.8

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"	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

2.3

2.1

Approved BY:

Schlegel

1210

PLANT #: P-14

Pit#

58-003

58-003

19-55

Sample Date:

Agg. Class

6AA

26A

2NS

Dates Test Represents:

12/19/22 Concrete Grade: S2M, 3500HP

12/20/2022	through	12/26/2022		
Source	Weight (SSD)	ft ³	Specific	%
Source	weight (SSD)	IL	Gravity	Contribution
Stoneco	1550	9.23	2.69	49.8
Stoneco	350	2.09	2 69	11 3

7.26

2.67

38.9

Contractor:

MDOT No.:



Buil	ders R	edi-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"	99.8	100	0.0	100.0	99.9	0.1	0.1
3/4"	85.7	100	0.0	100.0	92.9	7.0	7.1
1/2"	49.5	99	.3	100.0	74.8	18.1	25.2
3/8"	21.7	89	.9	100.0	59.8	14.9	40.2
#4	5.4	6.	9	99.9	42.3	17.5	57.7
#8	2.9	2.	0	90.1	36.7	5.6	63.3
#16	2.3	1.	7	69.4	28.3	8.4	71.7
#30	2.6	1.	5	44.5	18.8	9.6	81.2
#50	2.3	1.	4	14.3	6.9	11.9	93.1
#100	2.1	1.	3	2.7	2.2	4.6	97.8
LBW	1.5	1.	2	0.2	1.0	1.3	99.0
		_	·	•	·		

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

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

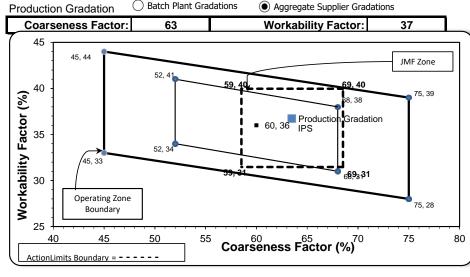
nom. max., #100 and #200 sieves.

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

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coarseness 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

PLANT #: 11

Sample Date:

#100

12/19/22 12/20/2022

1.2

Contractor:

Concrete Grade: S2M, 3500HP

Dates Test F	Represents:	12/20/2022	through	12/26/2022		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1570	9.60	2.62	51.5
26A	71-47	Presque Isle	250	1.53	2.62	8.2
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3
		Total Wt	3050	18.57		100.0

0.9

MDOT No.:

Cumulative

96.7

99.0

---- Verify this number is 100%

Cumulative

3.3

6.4

SUP	ER	IOR ALS

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

Sieve	6AA	26A	2NS	% Passing	% Retained	% 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"	99.2	100.0	100.0	99.6	0.4	0.4
3/4"	86.3	100.0	100.0	92.9	6.6	7.1
1/2"	47.8	97.2	100.0	72.9	20.0	27.1
3/8"	26.7	82.0	100.0	60.8	12.1	39.2
#4	3.5	10.3	95.2	41.0	19.8	59.0
#8	1.5	2.7	83.2	34.5	6.5	65.5
#16	1.3	1.4	68.0	28.2	6.3	71.8
#30	1.2	1.1	49.2	20.5	7.7	79.5
#50	1.2	1.0	23.7	10.3	10.3	89.7

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

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

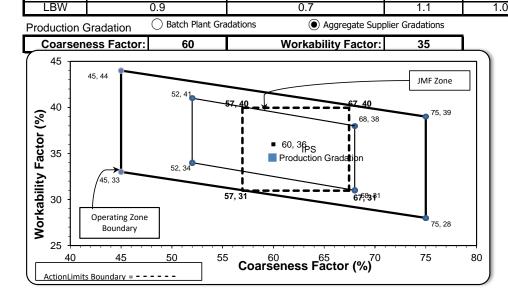
nom. max., #100 and #200 sieves.

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

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

7.0

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"	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

Sample Date:

12/19/22 Concrete Grade: S2M, 3500HP

Dates Lest F	Represents:	12/20/2022	through	12/26/2022		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific	%
Ayy. Class	FIL#	Source	Weight (SSD)	IL	Gravity	Contribution
6AA	71-47	Presque Isle	1570	9.60	2.62	51.5
26A	71-47	Presque Isle	250	1.53	2.62	8.2
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3

Contractor:

MDOT No.:

	IVIL
%	
tribution	
51.5	
8.2	
40.3	

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

d Cumulative % Retained
0.0
0.0
0.4
7.1
27.1
39.2
59.0
65.5
71.8
79.5
89.7
96.7
99.0

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

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

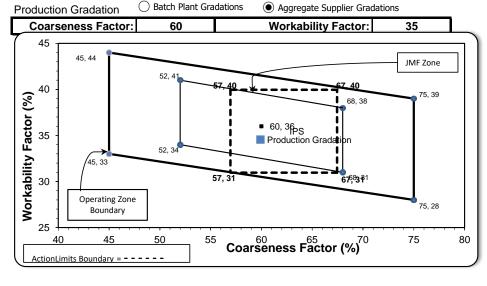
nom. max., #100 and #200 sieves.

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

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") 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"	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

Approved By: PREPARED BY: SM, LLC Technical Service

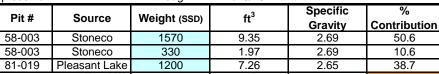
Sample Date:

12/19/22 Concrete Grade: S2M, 3500HP

Dates Test F	Represents:	12/20/2022	through	12/26/2022		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1570	9.35	2.69	50.6
26A	58-003	Stoneco	330	1.97	2.69	10.6
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7

Contractor:

MDOT No.:



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

	Total 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"	99.8	100.0	100.0	99.9	0.1	0.1
3/4"	85.7	100.0	100.0	92.8	7.1	7.2
1/2"	49.5	99.3	100.0	74.3	18.4	25.7
3/8"	21.7	89.9	100.0	59.3	15.1	40.7
#4	5.4	6.9	97.4	41.2	18.1	58.8
#8	2.9	2.0	83.5	34.0	7.2	66.0 r
#16	2.3	1.7	67.0	27.3	6.7	72.7
#30	2.6	1.5	49.7	20.7	6.6	79.3 r
#50	2.3	1.4	24.2	10.7	10.0	89.3
#100	2.1	1.3	6.9	3.9	6.8	96.1 a
LBW	1.5	1.2	1.8	1.6	2.3	98.4

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

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

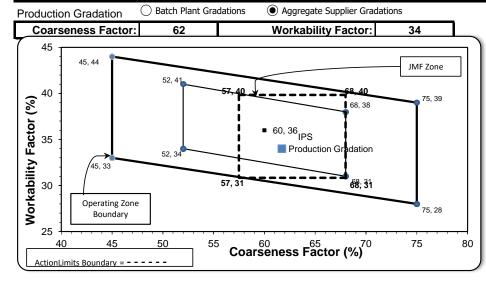
nom. max., #100 and #200 sieves.

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

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coars	eness Factor:	63	
Work	ability Factor:	35	
Siovo	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

Sample Date:

12/19/22 Concrete Grade: S2M, 3500HP

Dates Test F	Represents:	12/20/2022	through	12/26/2022		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1570	9.60	2.62	51.5
26A	71-47	Presque Isle	280	1.71	2.62	9.2
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/	4	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	99.2	0.8	0.8
3/4"	89.2	100	.0	100.0	94.4	4.8	5.6
1/2"	46.9	97.	2	100.0	72.4	22.0	27.6
3/8"	29.9	82.	0	100.0	62.3	10.1	37.7
#4	6.0	10.	3	97.6	42.4	19.8	57.6
#8	2.2	2.7	7	84.4	34.6	7.8	65.4
#16	1.8	1.4	1	70.5	28.8	5.8	71.2
#30	1.7	1.1		53.4	22.0	6.8	78.0
#50	1.6	1.0)	24.4	10.5	11.5	89.5
#100	1.6	0.9	9	4.1	2.5	8.0	97.5
LBW	1.3	0.7	7	0.8	1.0	1.5	99.0

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

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

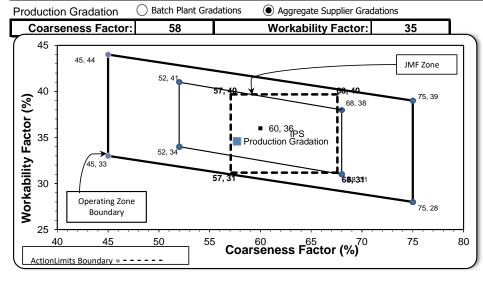
nom. max., #100 and #200 sieves.

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

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coars	eness Factor:	62	
Work	ability Factor:	35	
Siovo	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

Sample Date:

12/19/22 Concrete Grade: S2M, 3500HP

Dates Test Represents: 12/20/2022 12/26/2022 through

MDOT No.:	

Contractor:

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	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

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

•	Total Wt	3050	18.57		100.0	< Verify this number is 100%	
Sieve	6AA	26	6 A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	10	0.0	100.0	100.0	0.0	0.0
1.5"	100.0	10	0.0	100.0	100.0	0.0	0.0
1"	95.8	10	0.0	100.0	97.9	2.1	2.1
3/4"	76.2	10	0.0	100.0	88.3	9.6	11.7
1/2"	34.2	97	7.4	100.0	67.4	20.9	32.6
3/8"	16.6	87	7.4	100.0	57.7	9.6	42.3
#4	2.6	18	3.8	96.2	42.6	15.2	57.4
#8	1.7	3	.9	80.4	34.2	8.4	65.8
#16	1.5	2	.0	65.2	27.7	6.5	72.3
#30	1.5	1	.7	49.4	21.2	6.5	78.8
#50	1.5	1	.6	24.3	10.9	10.3	89.1
#100	1.4	1	.5	9.0	4.5	6.3	95.5
LBW	1.3	1	.4	0.8	1.1	3.4	98.9

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

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

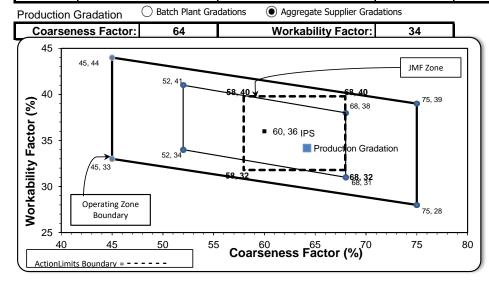
nom. max., #100 and #200 sieves.

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

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") 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

PREPARED BY: SM, LLC Technical Service Approved By:

Total Wt

PLANT #: P-02

Sample Date:

LBW

12/19/22 Concrete Grade: S2M, 3500HP

18.57

Dates Test F	Represents:	12/20/2022	through	12/26/2022		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1670	10.21	2.62	54.8
26A	71-47	Presque Isle	150	0.92	2.62	4.9
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3

0.7

3050

Contractor:

MDOT No.:

100.0

1.0



---- Verify this number is 100%

Retained	Cumulative % Retained	
----------	--------------------------	--

re g	% Retained	Cumulative % Retained
	0.0	0.0
	0.0	0.0
	0.8	0.8

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"	98.5	100.0	100.0	99.2	0.8	0.8
3/4"	89.2	100.0	100.0	94.1	5.1	5.9
1/2"	46.9	97.2	100.0	70.8	23.3	29.2
3/8"	29.9	82.0	100.0	60.7	10.1	39.3
#4	6.0	10.3	96.3	42.6	18.1	57.4
#8	2.2	2.7	80.3	33.7	8.9	66.3
#16	1.8	1.4	64.9	27.2	6.5	72.8
#30	1.7	1.1	49.6	21.0	6.2	79.0
#50	1.6	1.0	25.9	11.4	9.6	88.6
#100	1.6	ΛQ	43	2.7	8.7	97.3

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

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

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

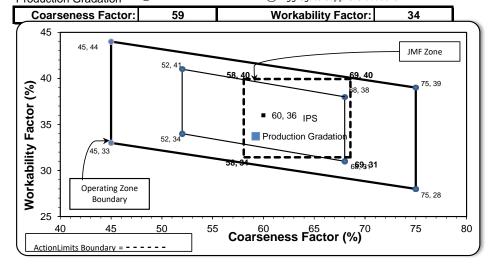
*% Retained must be at least 4% for each sieve except max.,

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.

 Batch Plant Gradations Aggregate SupplierGradations **Production Gradation**



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