

Aggregate Optimization Chart

Production Gradation Report

PLANT #: 12

Sample Date: 10/30/23

Dates Test Represents: 10/31/2023 through 11/6/2023

Concrete Grade: DM, 4500HP

Contractor: _____

MDOT No.: _____



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

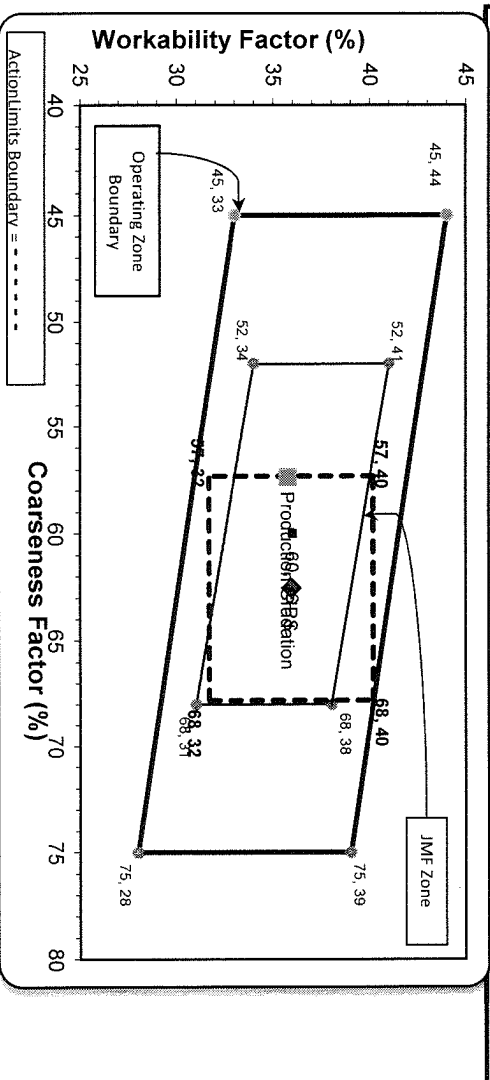
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	Contribution %	% Retained	Cumulative % Retained	
GAA	71-47	Presque Isle	1450	8.87	2.62	49.9	0.0	0.0	
26A	71-47	Presque Isle	305	1.87	2.62	10.5	0.0	0.0	
2NS	63-115	Ray Rd	1150	6.95	2.65	39.6	0.0	0.0	
Total Wt						2905	100.0	100.0	
							Verify this number is 100%		
Sieve	GAA		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"	81.6		100.0		100.0		90.8	9.2	9.2
1/2"	43.9		93.7		100.0		71.3	19.5	28.7
3/8"	27.5		80.4		100.0		61.7	9.6	38.3
#4	5.3		18.0		96.5		42.7	19.0	57.3
#8	2.8		4.6		79.3		33.3	9.5	66.7
#16	2.5		3.1		62.2		26.2	7.1	73.8
#30	2.4		2.8		47.4		20.2	6.0	79.8
#50	2.3		2.5		23.2		10.6	9.6	89.4
#100	2.2		2.2		5.1		3.3	7.3	96.7
LBW	1.9		1.8		0.7		1.4	1.9	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. 1.0") aggregate is used

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor: **63**



Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.3	0.7	0.7
3/4"	89.0	10.3	11.0
1/2"	70.3	18.7	29.7
3/8"	59.9	10.4	40.1
#4	41.9	18.0	58.1
#8	35.9	6.0	64.1
#16	27.8	8.2	72.2
#30	18.9	8.8	81.1
#50	6.3	12.6	93.7
#100	1.7	4.6	98.3
LBW	1.0	0.7	99.0

PREPARED BY:
 SM, LLC Technical Service

Approved By: _____

Mechanical Analysis Report

Material	Location	Sample Type	Sample Method	Sampled by	Sample Date	Time
6AA	Onsite Southfield	QA	Bucket Blend	Douglas Storey	10/31/23	12:00 PM
Sample Weights						
Sieve	Retained Fractional	Percents Retained	Percents Cumulative	Passing	Low Limit	High Limit
2"	0	0.00	0.00	100.00		
1 1/2"	0	0.00	0.00	100.00		
1"	0	0.00	0.00	100.00		
3/4"	770	18.38	18.38	81.62		
x 5/8"		0.00	18.38			
1/2"	1582	37.77	56.15	43.85		
3/8"	687	16.40	72.55	27.45		
x 1/4"		0.00	72.55			
No. 4	930	22.20	94.75	5.25		
No. 8	104	2.48	97.23	2.77		
No. 16	10	0.24	97.47	2.53		
No. 30	6	0.14	97.61	2.39		
No. 50	5	0.12	97.73	2.27		
No. 100	5	0.12	97.85	2.15		
No. 200	8	0.19	98.04	1.96		
Pan	3	0.07	98.11	0.00		
LBW	79	1.89			Max Sieve	1/2"
Total	4189	100.00				
Remarks:						
Sample Weights						
<i>Initial Weight:</i>		4299 gm				
<i>Dry Weight:</i>		4189 gm				
<i>Washed Weight:</i>		4110 gm				
Crushed Material						
<i>Retained Sieve:</i>		No. 4	Weight:	3969 gm		
<i>Crushed Material:</i>				gm %		
Deleterious Pick						
<i>Retained Sieve:</i>		No. 4	Weight:	3969 gm		
<i>Soft Particles:</i>		gm		%		
<i>Clay-Ironstone:</i>		gm		%		
<i>Chert:</i>		gm		%		
<i>Soft + Clay-Iron:</i>		0 gm		0.0 %		
<i>Total Deleterious:</i>		0 gm		0.0 %		
Other Test Results						
<i>Fineness Modulus:</i>		6.74				
<i>Moisture Content:</i>		110 gm		2.6 %		
<i>Loss by Wash:</i>		79 gm		1.9 %		
Tested by: Douglas Storey						
<i>Date:</i>		11/1/23		<i>Time:</i>		12:00 PM

Mechanical Analysis Report

Material	Location	Sample Type	Sample Method	Sampled by	Sample Date	Time
26A	Onsite Southfield	QA	Bucket Blend	Douglas Storey	10/31/23	12:00 PM
Sample Weights						
Sieve			Initial Weight:	2122 gm		
2"			Dry Weight:	2069 gm		
1 1/2"			Washed Weight:	2031 gm		
1"			Crushed Material			
3/4"						
x 5/8"						
1/2"			Retained Sieve:	No. 4	Weight:	1696 gm
3/8"			Crushed Material:			
x 1/4"						
Deleterious Pick						
No. 4			Retained Sieve:	No. 4	Weight:	1696 gm
No. 8			Soft Particles: gm %			
No. 16			Clay-Ironstone: gm %			
No. 30			Chert: gm %			
No. 50			Soft + Clay-Iron: 0 gm 0.0 %			
No. 100			Total Deleterious: 0 gm 0.0 %			
Other Test Results						
Pan			Fineness Modulus: 5.86			
LBW			Moisture Content: 53 gm 2.6 %			
Total			Loss by Wash: 38 gm 1.8 %			
Remarks:						
Douglas Storey						
Date:			11/1/23		Time: 12:00 PM	

Mechanical Analysis Report

Material	Location	Sample Type	Sample Method	Sampled by	Sample Date	Time
ZNS	Onsite Southfield	QA	Bucket Blend	Douglas Storey	10/31/23	12:00 PM
Sample Weights						
Sieve	Retained Fractional	Percents Cumulative	Specification			
	Weight	Percent	Retained	Passing	Low Limit	High Limit
2"	0	0.00	0.00	100.00		
1 1/2"	0	0.00	0.00	100.00		
1"	0	0.00	0.00	100.00		
3/4"	0	0.00	0.00	100.00		
x 5/8"		0.00	0.00			
1/2"	0	0.00	0.00	100.00		
3/8"	0	0.00	0.00	100.00		
x 1/4"		0.00	0.00			
No. 4	19	3.47	3.47	96.53		
No. 8	94	17.18	20.66	79.34		
No. 16	94	17.18	37.84	62.16		
No. 30	81	14.81	52.65	47.35		
No. 50	132	24.13	76.78	23.22		
No. 100	99	18.10	94.88	5.12		
No. 200	22	4.02	98.90	1.10		
Pan	2	0.37	99.27	0.00		
LBW	4	0.73			Max Sieve	No. 50
Total	547	100.00				
Remarks:						
Sample Weights						
			Initial Weight:	568 gm		
			Dry Weight:	547 gm		
			Washed Weight:	543 gm		
			Crushed Material			
			Retained Sieve:	No. 4	Weight:	19 gm
			Crushed Material:			%
Deleterious Pick						
			Retained Sieve:	No. 4	Weight:	19 gm
			Soft Particles:			%
			Clay-Ironstone:			%
			Chert:			%
			Soft + Clay-Iron:			0.0 %
			Total Deleterious:			0.0 %
Other Test Results						
			Fineness Modulus:	2.86		
			Moisture Content:	21 gm		3.8 %
			Loss by Wash:	4 gm		0.7 %
			Tested by: Douglas Storey			
			Date:	11/1/23	Time:	12:00 PM

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-102**

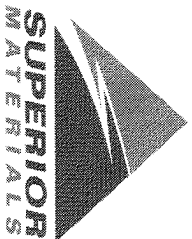
Sample Date: **10/30/23**

Dates Test Represents: **10/31/2023** through **11/6/2023**

Concrete Grade: **DM, 4500HP**

Contractor: _____

MDOT No.: _____



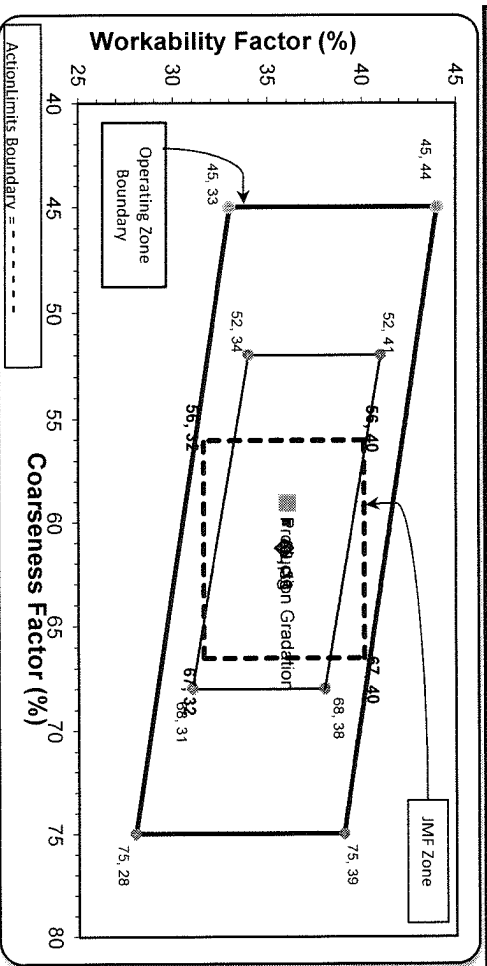
Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	Contribution %
6AA	58-003	Stonoco	1375	8.19	2.69	46.6
26A	58-003	Stonoco	425	2.53	2.69	14.4
ZNS	81-019	Pleasant Lake	1150	6.95	2.65	39.0
		Total Wt	2950	17.68		100.0

Sieve	6AA	26A	ZNS	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"	87.0	100.0	100.0	93.9	6.1	6.1
1/2"	44.0	99.7	100.0	73.8	20.1	26.2
3/8"	19.6	87.8	100.0	60.8	39.2	39.2
#4	3.0	10.4	97.8	41.0	59.0	59.0
#8	1.7	3.7	82.7	33.5	66.5	66.5
#16	1.4	3.0	62.6	25.5	74.5	74.5
#30	1.3	2.7	41.7	17.3	82.7	82.7
#50	1.2	2.5	16.1	7.2	92.8	92.8
#100	1.2	2.4	2.4	1.8	98.2	98.2
LBW	1.0	2.3	0.5	1.0	99.0	99.0

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor:	59	Workability Factor:	34	Adjusted WF	36.0
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Initial Production Sample (IPS)

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	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.

PREPARED BY:
SM, LLC Technical Service

Approved By: _____

Mechanical Analysis Report

Material	Location	Sample Type	Sample Method	Sampled by	Sample Date	Time
GAA	Novi	QA	Bucket Blend	Douglas Storey	11/1/23	12:00 PM
Sample Weights						
Sieve	Retained Fractional	Percent Retained	Percent Cumulative	Low Limit	High Limit	
	Weight	Percent	Passing			
2"		0.00				
1 1/2"	0	0.00	100.00			
1"	0	0.00	100.00			
3/4"	521	13.05	86.95			
5/8"		0.00				
1/2"	1716	43.00	43.95			
3/8"	973	24.38	19.57			
1/4"		0.00				
No. 4	662	16.59	2.98			
No. 8	53	1.33	1.65			
No. 16	10	0.25	1.40			
No. 30	4	0.10	1.30			
No. 50	3	0.08	1.23			
No. 100	2	0.05	1.18			
No. 200	3	0.08	1.10			
Pan	3	0.08	0.00			
LBW	41	1.03		Max Sieve	1/2"	
Total	3991	100.00				
Remarks:						
Sample Weights						
<i>Initial Weight:</i>				4127 gm		
<i>Dry Weight:</i>				3991 gm		
<i>Washed Weight:</i>				3950 gm		
Crushed Material						
<i>Retained Sieve:</i>		No. 4	Weight:	3872 gm		
<i>Crushed Material:</i>				gm %		
Deleterious Pick						
<i>Retained Sieve:</i>		No. 4	Weight:	3872 gm		
<i>Soft Particles:</i>				gm %		
<i>Clay-Ironstone:</i>				gm %		
<i>Chert:</i>				gm %		
<i>Soft + Clay-Iron:</i>				0 gm 0.0 %		
<i>Total Deleterious:</i>				0 gm 0.0 %		
Other Test Results						
<i>Fineness Modulus:</i>				6.84		
<i>Moisture Content:</i>				136 gm 3.4 %		
<i>Loss by Wash:</i>				41 gm 1.0 %		
Tested by: Douglas Storey						
<i>Date:</i>		11/2/23		<i>Time:</i>		12:00 PM

Mechanical Analysis Report

Material	Location	Sample Type	Sample Method	Sampled by	Sample Date	Time																																										
26A	Novi	QA	Bucket Blend	Douglas Storey	11/1/23	12:00 PM																																										
Sample Weights																																																
Sieve			Retained Fractional Weight	Percent	Retained	Percents Cumulative																																										
2"		0.00	0	0.00	0.00	100.00																																										
1 1/2"		0.00	0	0.00	0.00	100.00																																										
1"		0.00	0	0.00	0.00	100.00																																										
3/4"		0.00	0	0.00	0.00	100.00																																										
5/8"		0.00		0.00	0.00																																											
1/2"		0.31	7	0.31	0.31	99.69																																										
3/8"		11.91	271	12.22	12.22	87.78																																										
1/4"		0.00		12.22																																												
No. 4		77.36	1760	89.58	10.42																																											
No. 8		6.77	154	96.35	3.65																																											
No. 16		0.66	15	97.01	2.99																																											
No. 30		0.31	7	97.32	2.68																																											
No. 50		0.18	4	97.49	2.51																																											
No. 100		0.09	2	97.58	2.42																																											
No. 200		0.09	2	97.67	2.33																																											
Pan		0.04	1	97.71	0.00																																											
LBW		2.29	52																																													
Total		100.00	2275																																													
Remarks:																																																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Sample Weights</th> </tr> </thead> <tbody> <tr> <td>Initial Weight:</td> <td style="text-align: right;">2349 gm</td> </tr> <tr> <td>Dry Weight:</td> <td style="text-align: right;">2275 gm</td> </tr> <tr> <td>Washed Weight:</td> <td style="text-align: right;">2223 gm</td> </tr> <tr> <td colspan="2" style="text-align: center;">Crushed Material</td> </tr> <tr> <td>Retained Sieve: No. 4</td> <td style="text-align: right;">Weight: 2038 gm</td> </tr> <tr> <td>Crushed Material:</td> <td style="text-align: right;">gm %</td> </tr> <tr> <td colspan="2" style="text-align: center;">Deleterious Pick</td> </tr> <tr> <td>Retained Sieve: No. 4</td> <td style="text-align: right;">Weight: 2038 gm</td> </tr> <tr> <td>Soft Particles:</td> <td style="text-align: right;">gm %</td> </tr> <tr> <td>Clay-Ironstone:</td> <td style="text-align: right;">gm %</td> </tr> <tr> <td>Chert:</td> <td style="text-align: right;">gm %</td> </tr> <tr> <td>Soft + Clay-Iron:</td> <td style="text-align: right;">0 gm 0.0 %</td> </tr> <tr> <td>Total Deleterious:</td> <td style="text-align: right;">0 gm 0.0 %</td> </tr> <tr> <td colspan="2" style="text-align: center;">Other Test Results</td> </tr> <tr> <td>Fineness Modulus:</td> <td style="text-align: right;">5.88</td> </tr> <tr> <td>Moisture Content:</td> <td style="text-align: right;">74 gm 3.3 %</td> </tr> <tr> <td>Loss by Wash:</td> <td style="text-align: right;">52 gm 2.3 %</td> </tr> <tr> <td colspan="2" style="text-align: center;">Tested by: Douglas Storey</td> </tr> <tr> <td>Date:</td> <td style="text-align: right;">11/2/23</td> </tr> <tr> <td>Time:</td> <td style="text-align: right;">12:00 PM</td> </tr> </tbody> </table>							Sample Weights		Initial Weight:	2349 gm	Dry Weight:	2275 gm	Washed Weight:	2223 gm	Crushed Material		Retained Sieve: No. 4	Weight: 2038 gm	Crushed Material:	gm %	Deleterious Pick		Retained Sieve: No. 4	Weight: 2038 gm	Soft Particles:	gm %	Clay-Ironstone:	gm %	Chert:	gm %	Soft + Clay-Iron:	0 gm 0.0 %	Total Deleterious:	0 gm 0.0 %	Other Test Results		Fineness Modulus:	5.88	Moisture Content:	74 gm 3.3 %	Loss by Wash:	52 gm 2.3 %	Tested by: Douglas Storey		Date:	11/2/23	Time:	12:00 PM
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Mechanical Analysis Report

Material	Location	Sample Type	Sample Method	Sampled by	Sample Date	Time
2NS	Novi	QA	Bucket Blend	Douglas Storey	11/1/23	12:00 PM
Sample Weights						
Sieve	Retained Fractional	Percents Cumulative	Specification			
	Weight	Percent	Retained	Passing	Low Limit	High Limit
2"		0.00	0.00			
1 1/2"		0.00	0.00			
1"		0.00	0.00			
3/4"		0.00	0.00			
5/8"		0.00	0.00			
1/2"		0.00	0.00			
3/8"	0	0.00	0.00	100.00		
1/4"		0.00	0.00			
No. 4	13	2.22	2.22	97.78		
No. 8	88	15.04	17.26	82.74		
No. 16	118	20.17	37.44	62.56		
No. 30	122	20.85	58.29	41.71		
No. 50	150	25.64	83.93	16.07		
No. 100	80	13.68	97.61	2.39		
No. 200	11	1.88	99.49	0.51		
Pan	0	0.00	99.49	0.00		
LBW	3	0.51			Max Sieve	No. 50
Total	585	100.00				
Remarks:						
Sample Weights						
			Initial Weight:	605 gm		
			Dry Weight:	585 gm		
			Washed Weight:	582 gm		
Crushed Material						
			Retained Sieve:	No. 4	Weight:	13 gm
			Crushed Material:			%
Deleterious Pick						
			Retained Sieve:	No. 4	Weight:	13 gm
			Soft Particles:			%
			Clay-Ironstone:			%
			Chert:			%
			Soft + Clay-Iron:			0.0 %
			Total Deleterious:			0.0 %
Other Test Results						
			Fineness Modulus:	2.97		
			Moisture Content:	20 gm		3.4 %
			Loss by Wash:	3 gm		0.5 %
			Tested by:	Douglas Storey		
			Date:	11/2/23		Time: 12:00 PM

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-103

Contractor:

Sample Date: 10/30/23

Concrete Grade: DM, 4500HP

Dates Test Represents: 10/31/2023 through 11/6/2023

MDOT No.:

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	Contribution %
6AA	58-003	Stoneco	1375	8.19	2.69	46.6
26A	58-003	Stoneco	425	2.53	2.69	14.4
2NS	81-019	Pleasant Lake	1150	6.95	2.65	39.0
Total Wt			2950	17.68		100.0

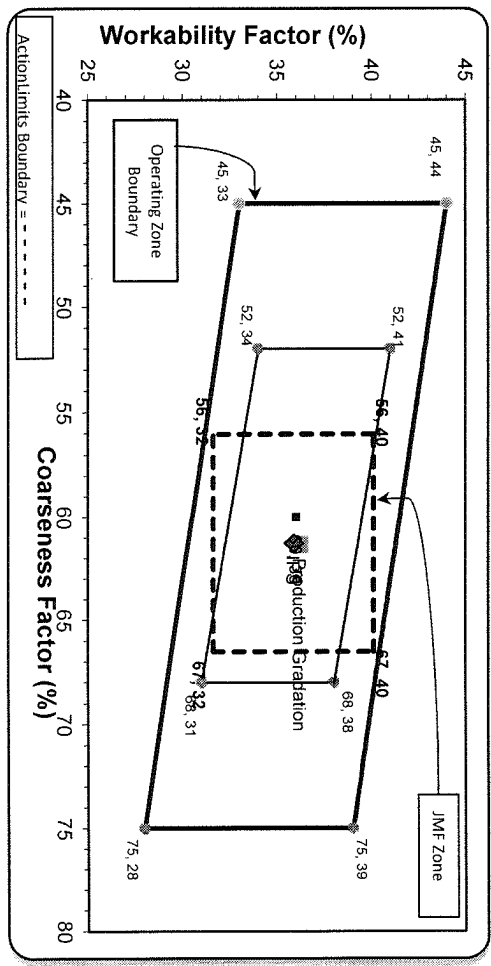
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	99.4	100.0	100.0	99.7	0.3	0.3
3/4"	77.1	100.0	100.0	89.3	10.4	10.7
1/2"	32.6	99.3	100.0	68.5	20.8	31.5
3/8"	16.9	86.6	100.0	59.3	9.2	40.7
#4	3.0	11.9	98.4	41.4	17.9	58.6
#8	1.5	4.3	83.1	33.7	7.7	66.3
#16	1.2	2.8	62.6	25.4	8.3	74.6
#30	1.1	2.4	42.3	17.3	8.0	82.7
#50	1.0	2.1	17.2	7.5	9.8	92.5
#100	1.0	2.0	2.8	1.8	5.7	98.2
LBW	0.8	1.7	0.5	0.8	1.0	99.2

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

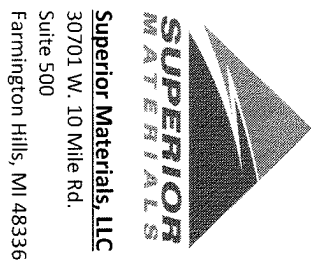
Initial Production Sample (IPS)

Coarseness Factor:	61	Workability Factor:	34	Adjusted WF	36.2
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Coarseness Factor:	61
Workability Factor:	36



Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	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.

PREPARED BY:
SM, LLC Technical Service

Approved BY: *[Signature]*

Mechanical Analysis Report

Material	Location	Sample Type	Sample Method	Sampled by	Sample Date	Time
GAA	Brighton	QA	Bucket Blend	Douglas Storey	11/4/23	12:00 PM
Sample Weights						
Sieve			Retained Fractional Weight	Percent	Retained	Passing
			Percents Cumulative			
			Specification			
			Low Limit	High Limit		
2"	0	0.00	0.00	100.00		
1 1/2"	0	0.00	0.00	100.00		
1"	21	0.57	0.57	99.43		
3/4"	821	22.29	22.86	77.14		
x 5/8"		0.00	22.86			
1/2"	1640	44.52	67.37	32.63		
3/8"	579	15.72	83.09	16.91		
x 1/4"		0.00	83.09			
No. 4	514	13.95	97.04	2.96		
No. 8	54	1.47	98.51	1.49		
No. 16	10	0.27	98.78	1.22		
No. 30	4	0.11	98.89	1.11		
No. 50	3	0.08	98.97	1.03		
No. 100	2	0.05	99.02	0.98		
No. 200	2	0.05	99.08	0.92		
Pan	5	0.14	99.21	0.00		
LBW	29	0.79				
Total	3684	100.00				
Remarks:						
Deleterious Pick						
Retained Sieve:			No. 4	Weight:	3575 gm	
Soft Particles:			gm		%	
Clay-Ironstone:			gm		%	
Chert:			gm		%	
Soft + Clay-Iron:			0 gm		0.0 %	
Total Deleterious:			0 gm		0.0 %	
Other Test Results						
Fineness Modulus:			6.97			
Moisture Content:			138 gm		3.7 %	
Loss by Wash:			29 gm		0.8 %	
Tested by: Douglas Storey						
Date:		11/4/23	Time:		12:00 PM	

Mechanical Analysis Report

Material	Location	Sample Type	Sample Method	Sampled by	Sample Date	Time
26A	Brighton	QA	Bucket Blend	Douglas Storey	11/4/23	12:00 PM
Sample Weights						
Sieve			Retained Fractional Weight	Percent	Percents Retained	Percents Cumulative
2"	0	0.00	0.00	100.00		
1 1/2"	0	0.00	0.00	100.00		
1"	0	0.00	0.00	100.00		
3/4"	0	0.00	0.00	100.00		
x 5/8"		0.00	0.00			
1/2"	16	0.72	0.72	99.28		
3/8"	281	12.72	13.44	86.56		
x 1/4"		0.00	13.44			
No. 4	1649	74.65	88.09	11.91		
No. 8	169	7.65	95.74	4.26		
No. 16	32	1.45	97.19	2.81		
No. 30	10	0.45	97.65	2.35		
No. 50	6	0.27	97.92	2.08		
No. 100	3	0.14	98.05	1.95		
No. 200	2	0.09	98.14	1.86		
Pan	3	0.14	98.28	0.00		
LBW	38	1.72				
Total	2209	100.00				
Remarks:						
Sample Weights						
Initial Weight:			2305 gm			
Dry Weight:			2209 gm			
Washed Weight:			2171 gm			
Crushed Material						
Retained Sieve:			No. 4	Weight:	1946 gm	
Crushed Material:				gm		%
Deleterious Pick						
Retained Sieve:			No. 4	Weight:	1946 gm	
Soft Particles:				gm		%
Clay-Ironstone:				gm		%
Chert:				gm		%
Soft + Clay-Iron:				0 gm		0.0 %
Total Deleterious:				0 gm		0.0 %
Other Test Results						
Fineness Modulus:			5.88			
Moisture Content:			96 gm		4.3 %	
Loss by Wash:			38 gm		1.7 %	
Tested by: Douglas Storey						
Date:			11/4/23	Time:		12:00 PM

Mechanical Analysis Report

Material	Location	Sample Type	Sample Method	Sampled by	Sample Date	Time
2NS	Brighton	QA	Bucket Blend	Douglas Storey	11/1/23	12:00 PM
Sample Weights						
<i>Initial Weight:</i>				633 gm		
<i>Dry Weight:</i>				615 gm		
<i>Washed Weight:</i>				612 gm		
Crushed Material						
<i>Retained Sieve:</i>				No. 4	<i>Weight:</i> 10 gm	
<i>Crushed Material:</i>				gm		
Deleterious Pick						
<i>Retained Sieve:</i>				No. 4	<i>Weight:</i> 10 gm	
<i>Soft Particles:</i>				gm		
<i>Clay-Ironstone:</i>				gm		
<i>Chert:</i>				gm		
<i>Soft + Clay-Iron:</i>				0 gm		
<i>Total Deleterious:</i>				0 gm		
Other Test Results						
<i>Fineness Modulus:</i>				2.94		
<i>Moisture Content:</i>				18 gm		
<i>Loss by Wash:</i>				3 gm		
				0.5 %		
Tested by: Douglas Storey						
<i>Date:</i>			11/2/23		<i>Time:</i> 12:00 PM	

Sieve	Retained Fractional		Percents Cumulative		Specification	
	Weight	Percent	Retained	Passing	Low Limit	High Limit
2"	0	0.00	0.00	100.00		
1 1/2"	0	0.00	0.00	100.00		
1"	0	0.00	0.00	100.00		
3/4"	0	0.00	0.00	100.00		
x 5/8"		0.00	0.00			
1/2"	0	0.00	0.00	100.00		
3/8"	0	0.00	0.00	100.00		
x 1/4"		0.00	0.00			
No. 4	10	1.63	1.63	98.37		
No. 8	94	15.28	16.91	83.09		
No. 16	126	20.49	37.40	62.60		
No. 30	125	20.33	57.72	42.28		
No. 50	154	25.04	82.76	17.24		
No. 100	89	14.47	97.24	2.76		
No. 200	14	2.28	99.51	0.49		
Pan	0	0.00	99.51	0.00		
LBW	3	0.49			Max Sieve	No. 50
Total	615	100.00				

Remarks: