

# Aggregate Optimization Chart

**PLANT #:** **P-102**

Sample Date: 12/11/25

Concrete Grade: **DM, 4500HP**

Contractor: \_\_\_\_\_

Dates Test Represents: 12/12/2025 through 12/12/2025

MDOT No.: \_\_\_\_\_

Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1400	8.34	2.69	48.6
26A	58-003	Stoneco	300	1.79	2.69	10.4
2NS	63-092	Grange Hall	1180	7.06	2.68	41.0
<b>Total Wt</b>			<b>2880</b>	<b>17.18</b>		<b>100.0</b>

<----- Verify this number 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"	86.8	100.0	100.0	93.6	6.3	6.4
1/2"	44.0	99.3	100.0	72.7	20.9	27.3
3/8"	23.1	84.1	100.0	61.0	11.7	39.0
#4	3.5	10.0	98.2	43.0	18.0	57.0
#8	1.7	2.4	84.0	35.5	7.5	64.5
#16	1.2	2.0	68.5	28.9	6.6	71.1
#30	1.1	1.7	50.2	21.3	7.6	78.7
#50	1.1	1.4	21.7	9.6	11.7	90.4
#100	1.0	1.2	3.2	1.9	7.6	98.1
LBW	1.0	1.0	0.4	0.8	1.2	99.2



**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., 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.

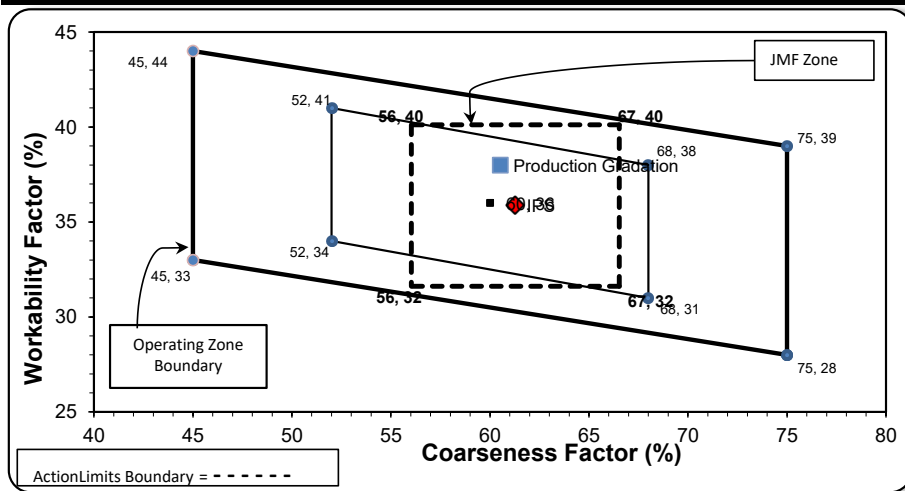
Production Gradation  Batch Plant Gradations  Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

<b>Coarseness Factor:</b>	<b>61</b>	<b>Workability Factor:</b>	<b>35</b>	<b>38.0</b>
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<b>Coarseness Factor:</b>	<b>61</b>
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<b>Workability Factor:</b>	<b>36</b>
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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

PREPARED BY:  
SM, LLC Technical Service

Approved By:  
Nancy Donahue



# Daily Summary Report

Date Thursday, December 11, 2025

Sample Id	-674938310	-1989633370	-674897598
Plant	S102 Superior Novi	S102 Superior Novi	S102 Superior Novi
Product	1051 6AA LS	1022 2NS GR	1067 26A Mod LS
Specification	6AA LS	2NS GR Spec	26A Mod LS Spec
Sample Type	QA	QA	QA
Time	09:54	09:58	10:00
2" (50mm)	100.0		100.0
1 1/2" (37.5mm)	100.0		100.0
1" (25mm)	98.7		100.0
3/4" (19mm)	78.5		100.0
1/2" (12.5mm)	39.0		99.5
3/8" (9.5mm)	22.1	100.0	90.3
#4 (4.75mm)	4.4	97.1	11.9
#8 (2.36mm)	2.1	83.3	2.6
#16 (1.18mm)	1.6	68.8	1.7
#30 (.6mm)	1.5	48.9	1.5
#50 (.3mm)	1.4	20.1	1.3
#100 (.15mm)	1.4	3.2	1.2
#200 (75µm)	1.35	1.1	1.2
Pan	0.00	0.0	0.0
FM		2.79	
Wash Loss (#200/75um)	1.3	1.0	1.1
Total Moisture	3.88	3.24	5.03

# Aggregate Optimization Chart

**PLANT #:** **P-103**

Sample Date: 12/11/25

Concrete Grade: **DM, 4500HP**

Contractor: \_\_\_\_\_

Dates Test Represents: 12/12/2025 through 12/19/2025

MDOT No.: \_\_\_\_\_

Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1400	8.34	2.69	48.6
26A	58-003	Stoneco	300	1.79	2.69	10.4
2NS	63-092	Grange Hall	1180	7.06	2.68	41.0
<b>Total Wt</b>			<b>2880</b>	<b>17.18</b>		<b>100.0</b>

<----- Verify this number 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"	86.8	100.0	100.0	93.6	6.3	6.4
1/2"	44.0	99.3	100.0	72.7	20.9	27.3
3/8"	23.1	84.1	100.0	61.0	11.7	39.0
#4	3.5	10.0	98.2	43.0	18.0	57.0
#8	1.7	2.4	84.0	35.5	7.5	64.5
#16	1.2	2.0	68.5	28.9	6.6	71.1
#30	1.1	1.7	50.2	21.3	7.6	78.7
#50	1.1	1.4	21.7	9.6	11.7	90.4
#100	1.0	1.2	3.2	1.9	7.6	98.1
LBW	1.0	1.0	0.4	0.8	1.2	99.2



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- \*% 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.

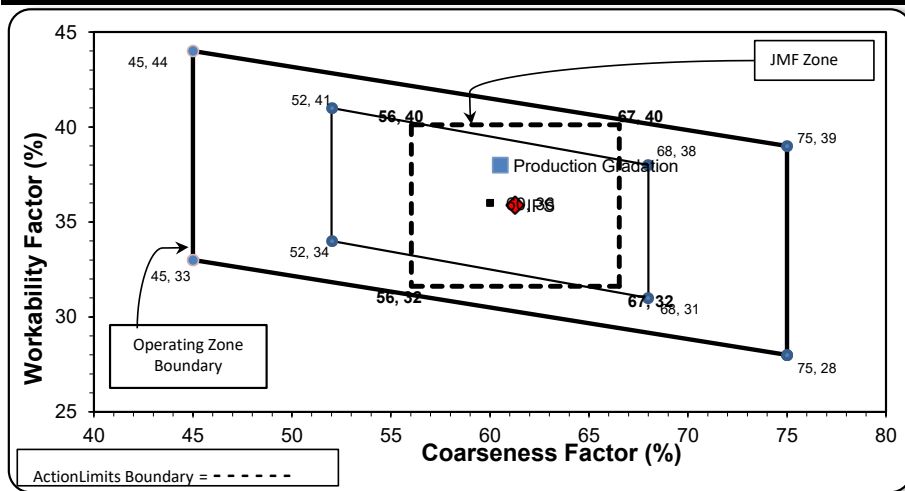
Production Gradation  Batch Plant Gradations  Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

<b>Coarseness Factor:</b>	<b>61</b>	<b>Workability Factor:</b>	<b>35</b>	<b>38.0</b>
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<b>Coarseness Factor:</b>	<b>61</b>
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<b>Workability Factor:</b>	<b>36</b>
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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

PREPARED BY:  
SM, LLC Technical Service

Approved By:  
Nancy Donahue



# Daily Summary Report

Date Thursday, December 11, 2025

Sample Id	-674928291	-674898544	-674943102
Plant	S103 Superior Brighton	S103 Superior Brighton	S103 Superior Brighton
Product	1022 2NS GR	1051 6AA LS	1067 26A Mod LS
Specification	2NS GR Spec	6AA LS	26A Mod LS Spec
Sample Type	QA	QA	QA
Time	09:05	09:11	09:15
2" (50mm)		100.0	100.0
1 1/2" (37.5mm)		100.0	100.0
1" (25mm)		100.0	100.0
3/4" (19mm)		78.6	100.0
1/2" (12.5mm)		38.1	99.2
3/8" (9.5mm)	100.0	21.1	89.1
#4 (4.75mm)	97.1	4.7	11.6
#8 (2.36mm)	81.6	3.0	2.2
#16 (1.18mm)	66.1	2.3	1.4
#30 (.6mm)	46.9	2.0	1.2
#50 (.3mm)	18.3	1.7	1.1
#100 (.15mm)	2.9	1.7	1.1
#200 (75µm)	0.8	1.55	1.0
Pan	0.0	0.00	0.0
FM	2.87		
Wash Loss (#200/75um)	0.6	1.4	1.0
Total Moisture	3.99	3.09	4.94