

Aggregate Optimization Chart

PLANT #: **P-102**

Contractor: _____

Sample Date: 3/27/26

Concrete Grade: **DM, 4500HP**

Dates Test Represents: 3/28/2026 through 4/3/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	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
Total Wt			2880	17.18		100.0

<----- 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"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	85.4	100.0	100.0	92.9	7.1	7.1
1/2"	41.1	99.4	100.0	71.3	21.6	28.7
3/8"	21.3	84.8	100.0	60.2	11.1	39.8
#4	3.4	7.1	97.0	42.1	18.0	57.9
#8	1.4	1.4	83.1	34.9	7.3	65.1
#16	0.7	1.1	67.5	28.1	6.8	71.9
#30	0.6	1.0	48.7	20.3	7.8	79.7
#50	0.6	0.9	20.4	8.7	11.6	91.3
#100	0.6	0.8	2.7	1.5	7.3	98.5
LBW	0.8	0.7	0.6	0.7	0.8	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.

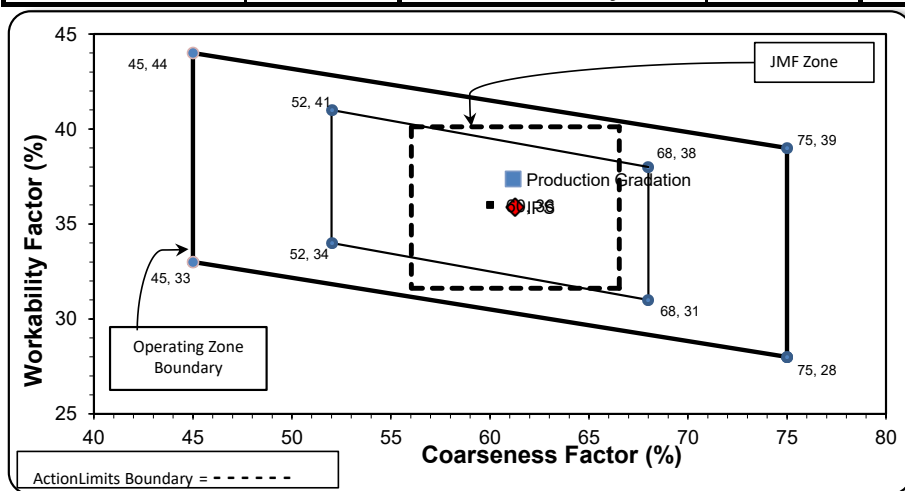
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	61	Workability Factor:	35	37.4
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Coarseness Factor:	61
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Workability Factor:	36
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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

Aggregate Optimization Chart

PLANT #: **P-103**

Sample Date: 3/27/26

Concrete Grade: **DM, 4500HP**

Contractor: _____

Dates Test Represents: 3/28/2026 through 4/3/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	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
Total Wt			2880	17.18		100.0

<----- 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"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	85.4	100.0	100.0	92.9	7.1	7.1
1/2"	41.1	99.4	100.0	71.3	21.6	28.7
3/8"	21.3	84.8	100.0	60.2	11.1	39.8
#4	3.4	7.1	97.0	42.1	18.0	57.9
#8	1.4	1.4	83.1	34.9	7.3	65.1
#16	0.7	1.1	67.5	28.1	6.8	71.9
#30	0.6	1.0	48.7	20.3	7.8	79.7
#50	0.6	0.9	20.4	8.7	11.6	91.3
#100	0.6	0.8	2.7	1.5	7.3	98.5
LBW	0.8	0.7	0.6	0.7	0.8	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.

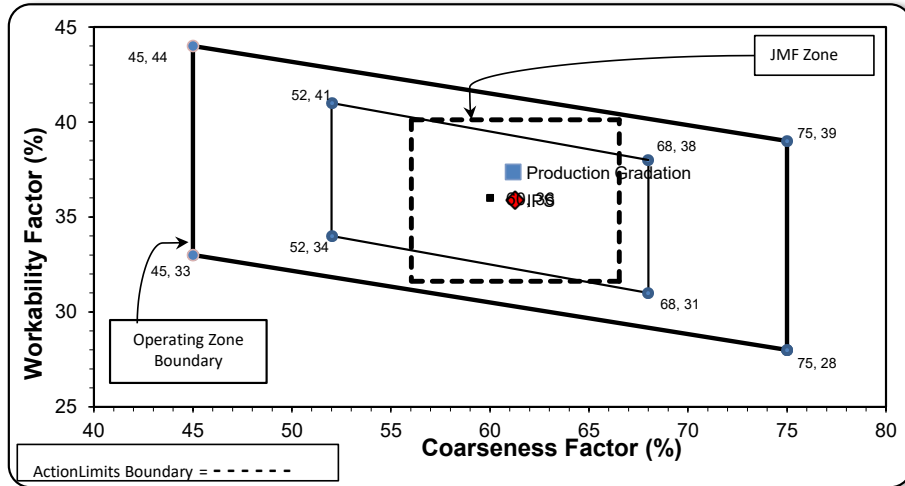
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	61	Workability Factor:	35	37.4
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Coarseness Factor:	61
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Workability Factor:	36
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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

Aggregate Optimization Chart

PLANT #: P-02

Contractor: _____

Sample Date: 3/26/26

Concrete Grade: DM, 4500HP

Dates Test Represents: 3/27/2026 through 4/2/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1480	8.82	2.60	50.5
26A	71-47	Presque Isle	300	1.79	2.60	10.2
2NS	63-115	Ray Rd.	1150	6.88	2.66	39.2
Total Wt			2930	17.48		100.0

<----- Verify this number is 100%



Superior Materials, LLC
 30701 W. 10 Mile Rd.
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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"	98.6	100.0	100.0	99.3	0.7	0.7
3/4"	77.0	100.0	100.0	88.4	10.9	11.6
1/2"	35.4	97.0	100.0	67.1	21.3	32.9
3/8"	17.8	82.9	100.0	56.7	10.3	43.3
#4	2.3	19.4	96.8	41.1	15.6	58.9
#8	1.7	6.3	83.0	34.1	7.1	65.9
#16	1.6	3.4	64.6	26.5	7.6	73.5
#30	1.5	2.7	48.9	20.2	6.3	79.8
#50	1.4	2.4	26.1	11.2	9.0	88.8
#100	1.4	2.2	7.5	3.9	7.3	96.1
LBW	1.2	2.0	1.3	1.3	2.6	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.

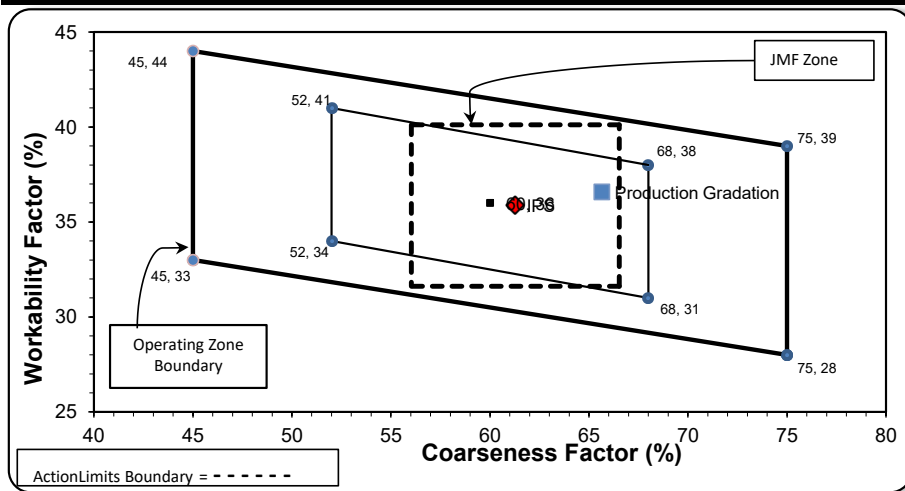
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	66	Workability Factor:	34	36.6
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Coarseness Factor:	61
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Workability Factor:	36
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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

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