

Aggregate Optimization Chart

PLANT #: P-2

Contractor: _____

Sample Date: 5/4/26

Concrete Grade: DM, 4500HP

Dates Test Represents: 5/5/2026 through 5/11/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Preque Isle	1350	8.42	2.57	46.1
26A	71-47	Preque Isle	400	2.49	2.57	13.7
2NS	63-115	Ray Rd	1180	7.08	2.67	40.3
Total Wt			2930	17.99		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"	99.0	100.0	100.0	99.5	0.5	0.5
3/4"	79.7	100.0	100.0	90.6	8.9	9.4
1/2"	34.0	96.5	100.0	69.1	21.5	30.9
3/8"	16.6	82.8	100.0	59.2	9.9	40.8
#4	2.7	15.6	97.9	42.8	16.4	57.2
#8	1.8	4.8	84.3	35.4	7.4	64.6
#16	1.5	2.9	62.0	26.1	9.4	73.9
#30	1.4	2.4	42.7	18.2	7.9	81.8
#50	1.4	2.2	19.7	8.9	9.3	91.1
#100	1.3	2.0	0.3	1.0	7.9	99.0
LBW	1.1	1.8	0.8	1.1	-0.1	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 4% for the 3/4" sieve when

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

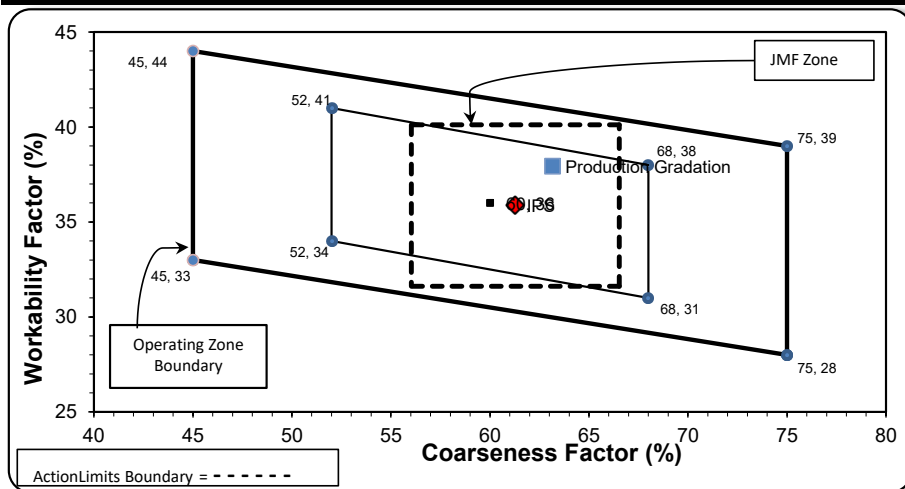
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	63	Workability Factor:	35	37.9
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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-102**

Sample Date: 5/4/26

Concrete Grade: **DM, 4500HP**

Contractor: _____

Dates Test Represents: 5/5/2026 through 5/11/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1530	9.11	2.69	50.8
26A	58-003	Stoneco	300	1.79	2.69	10.0
2NS	63-114	Highland	1180	7.11	2.66	39.2
Total Wt			3010	18.01		100.0

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



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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"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	86.8	100.0	100.0	93.3	6.7	6.7
1/2"	43.5	99.1	100.0	71.2	22.1	28.8
3/8"	21.2	82.4	100.0	58.2	13.0	41.8
#4	3.1	8.0	99.1	41.2	17.0	58.8
#8	1.2	1.8	84.6	34.0	7.3	66.0
#16	1.1	1.4	66.3	26.7	7.3	73.3
#30	1.1	1.2	48.4	19.7	7.0	80.3
#50	1.0	1.2	24.4	10.2	9.5	89.8
#100	0.9	1.1	4.8	2.4	7.7	97.6
LBW	0.8	1.0	0.8	0.8	1.6	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.

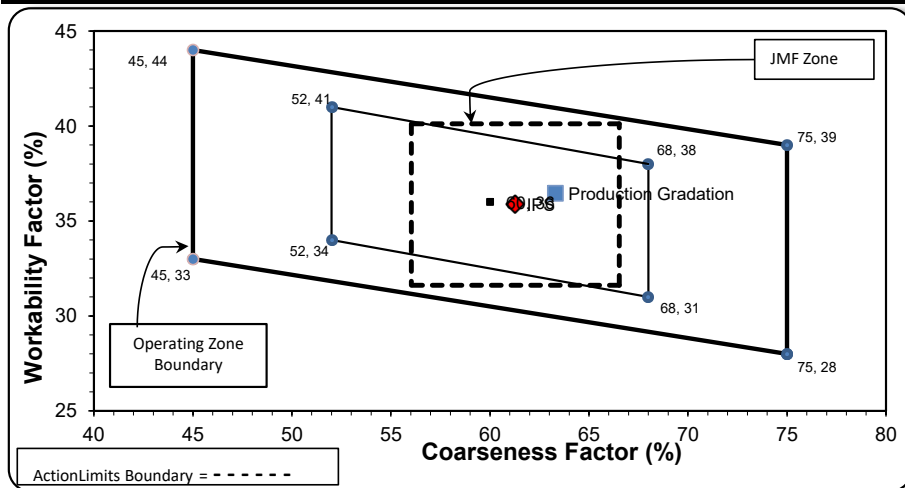
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	63	Workability Factor:	34	36.5
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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
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#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: 5/4/26

Concrete Grade: **DM, 4500HP**

Contractor: _____

Dates Test Represents: 5/5/2026 through 5/11/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1530	9.11	2.69	50.8
26A	58-003	Stoneco	300	1.79	2.69	10.0
2NS	63-114	Highland	1180	7.11	2.66	39.2
Total Wt			3010	18.01		100.0

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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"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	86.8	100.0	100.0	93.3	6.7	6.7
1/2"	43.5	99.1	100.0	71.2	22.1	28.8
3/8"	21.2	82.4	100.0	58.2	13.0	41.8
#4	3.1	8.0	99.1	41.2	17.0	58.8
#8	1.2	1.8	84.6	34.0	7.3	66.0
#16	1.1	1.4	66.3	26.7	7.3	73.3
#30	1.1	1.2	48.4	19.7	7.0	80.3
#50	1.0	1.2	24.4	10.2	9.5	89.8
#100	0.9	1.1	4.8	2.4	7.7	97.6
LBW	0.8	1.0	0.8	0.8	1.6	99.2

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

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

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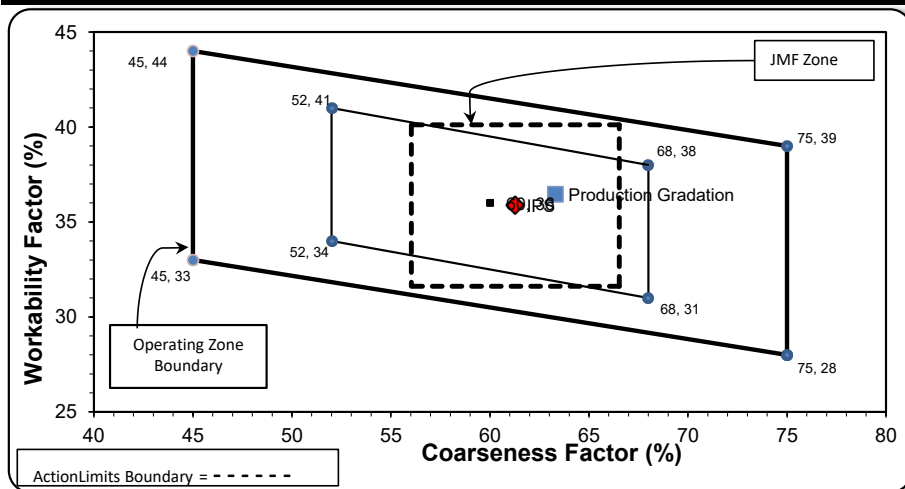
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	63	Workability Factor:	34	36.5
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Workability Factor:	36
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Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
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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
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#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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