

Aggregate Optimization Chart

PLANT #: **P-02**

Contractor: _____

Sample Date: 5/18/26

Concrete Grade: **DM, 4500HP**

Dates Test Represents: 5/19/2026 through 5/25/2026

SLIPFORM 1"

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1400	8.73	2.57	46.2
26A	71-47	Presque Isle	550	3.43	2.57	18.2
2NS	63-115	Ray Rd	1080	6.48	2.67	35.6
Total Wt			3030	18.64		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"	99.3	100.0	100.0	99.7	0.3	0.3
3/4"	88.2	100.0	100.0	94.5	5.1	5.5
1/2"	39.2	97.3	100.0	71.4	23.1	28.6
3/8"	18.6	83.5	100.0	59.4	12.0	40.6
#4	2.9	16.1	98.1	39.2	20.2	60.8
#8	1.9	14.1	87.2	34.5	4.7	65.5
#16	1.7	2.9	64.0	24.1	10.4	75.9
#30	1.6	2.3	43.6	16.7	7.4	83.3
#50	1.6	2.0	20.0	8.2	8.5	91.8
#100	1.5	1.9	3.9	2.4	5.8	97.6
LBW	1.4	1.7	0.8	1.2	1.2	98.8

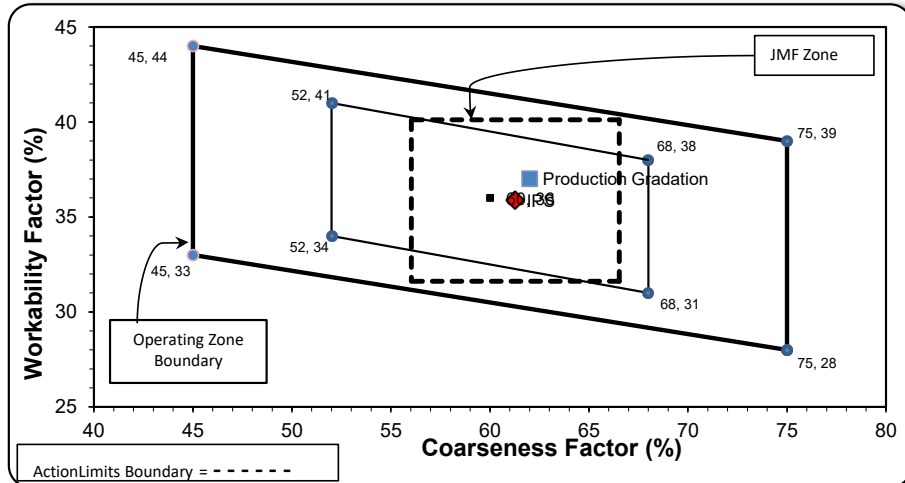
*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations Adjusted WF Initial Production Sample (IPS)

Coarseness Factor: 62 **Workability Factor: 35** **37.0**

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

PREPARED BY:
 SM, LLC Technical Service

Approved By:
 Nancy Donahue

Aggregate Optimization Chart

PLANT #: P-12

Contractor: _____

Sample Date: 5/18/26

Concrete Grade: **DM, 4500HP**

Dates Test Represents: 5/19/2026 through 5/25/2026

SLIPFORM 1"

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1400	8.73	2.57	46.2
26A	71-47	Presque Isle	550	3.43	2.57	18.2
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Total Wt			3030	18.64		100.0

----- Verify this number is 100%



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 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"	99.3	100.0	100.0	99.7	0.3	0.3
3/4"	88.2	100.0	100.0	94.5	5.1	5.5
1/2"	39.2	97.3	100.0	71.4	23.1	28.6
3/8"	18.6	83.5	100.0	59.4	12.0	40.6
#4	2.9	16.1	98.1	39.2	20.2	60.8
#8	1.9	14.1	87.2	34.5	4.7	65.5
#16	1.7	2.9	64.0	24.1	10.4	75.9
#30	1.6	2.3	43.6	16.7	7.4	83.3
#50	1.6	2.0	20.0	8.2	8.5	91.8
#100	1.5	1.9	3.9	2.4	5.8	97.6
LBW	1.4	1.7	0.8	1.2	1.2	98.8

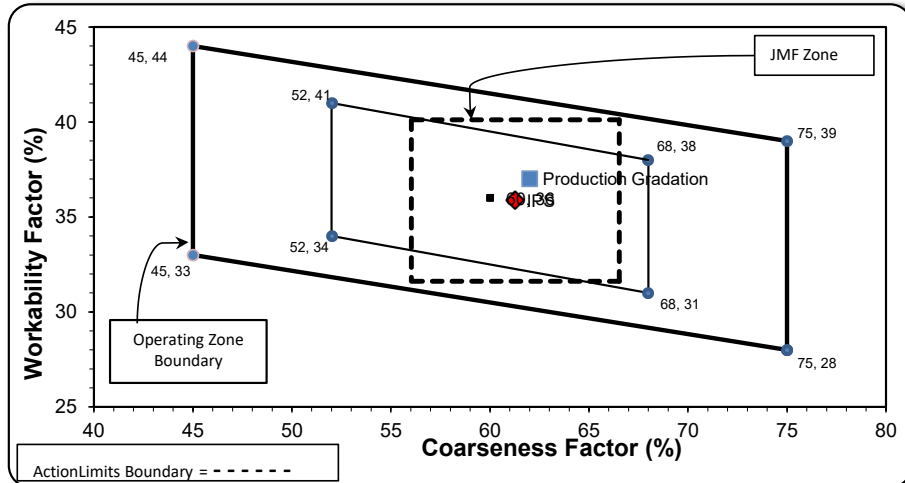
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 *Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations Adjusted WF Initial Production Sample (IPS)

Coarseness Factor: 62 **Workability Factor: 35** **37.0**

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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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#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: 5/18/26

Concrete Grade: **DM, 4500HP**

Contractor: _____

Dates Test Represents: 5/19/2026 through 5/25/2026

SLIPFORM 1"

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1590	9.47	2.69	52.6
26A	58-003	Stoneco	330	1.97	2.69	10.9
2NS	63-114	Highland	1100	6.70	2.63	36.4
Total Wt			3020	18.14		100.0

----- Verify this number is 100%



Superior Materials, LLC

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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"	99.8	100.0	100.0	99.9	0.1	0.1
3/4"	81.9	100.0	100.0	90.5	9.4	9.5
1/2"	40.0	98.9	100.0	68.3	22.2	31.7
3/8"	21.8	82.3	100.0	56.9	11.4	43.1
#4	3.7	9.9	99.0	39.1	17.8	60.9
#8	1.5	21.1	84.9	34.0	5.1	66.0
#16	0.0	1.4	68.0	24.9	9.1	75.1
#30	0.0	1.2	49.6	18.2	6.7	81.8
#50	0.0	1.1	25.9	9.6	8.6	90.4
#100	0.0	1.1	5.2	2.0	7.5	98.0
LBW	0.9	1.0	0.7	0.8	1.2	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.

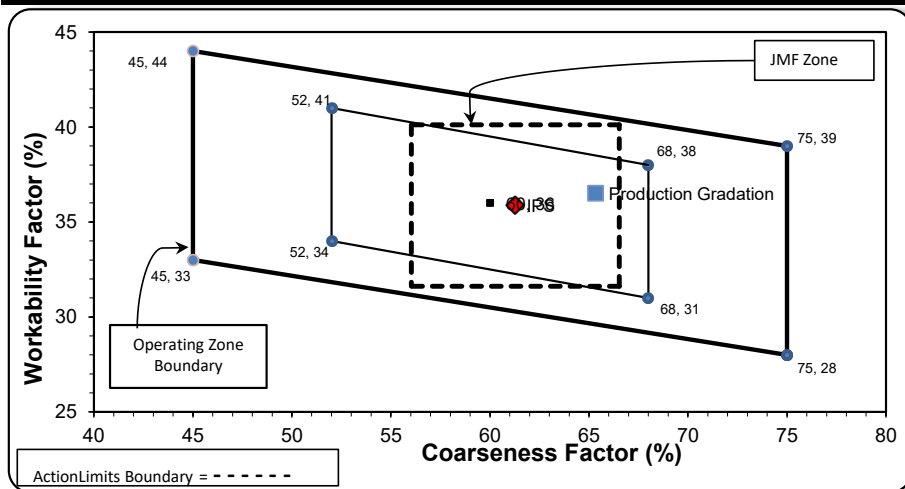
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	65	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
#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: 5/18/26

Concrete Grade: **DM, 4500HP**

Contractor: _____

Dates Test Represents: 5/19/2026 through 5/25/2026

SLIPFORM 1"

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1590	9.47	2.69	52.6
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Total Wt			3020	18.14		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"	99.8	100.0	100.0	99.9	0.1	0.1
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#50	0.0	1.1	25.9	9.6	8.6	90.4
#100	0.0	1.1	5.2	2.0	7.5	98.0
LBW	0.9	1.0	0.7	0.8	1.2	99.2

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

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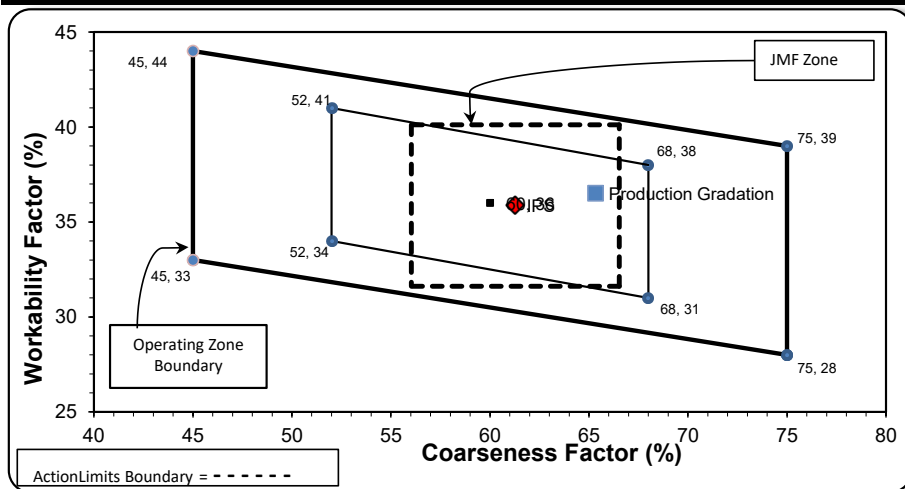
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	65	Workability Factor:	34	36.5
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