

Aggregate Optimization Chart

PLANT #: **P-02**

Sample Date: 4/10/26

Concrete Grade: **DM, 4500HP**

Contractor: _____

Dates Test Represents: 4/11/2026 through 4/17/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1410	8.40	2.69	47.0
26A	71-47	Presque Isle	410	2.44	2.69	13.7
2NS	63-115	Ray Rd	1180	7.06	2.68	39.3
Total Wt			3000	17.90		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"	97.9	100.0	100.0	99.0	1.0	1.0
3/4"	80.5	100.0	100.0	90.8	8.2	9.2
1/2"	41.5	95.4	100.0	71.9	19.0	28.1
3/8"	22.1	78.3	100.0	60.4	11.5	39.6
#4	3.9	13.9	97.3	42.0	18.4	58.0
#8	2.3	4.4	82.5	34.1	7.9	65.9
#16	2.0	2.6	63.9	26.4	7.7	73.6
#30	1.9	2.2	48.0	20.1	6.4	79.9
#50	1.9	1.9	24.6	10.8	9.2	89.2
#100	1.8	1.8	5.3	3.2	7.7	96.8
LBW	1.5	1.6	0.9	1.3	1.9	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.

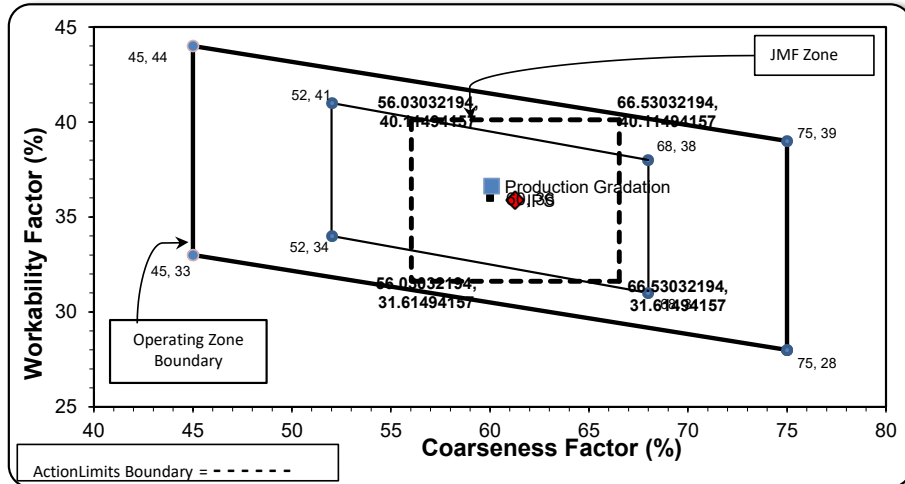
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	60	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

PREPARED BY:
 SM, LLC Technical Service

Approved By:
 Nancy Donahue

Aggregate Optimization Chart

PLANT #: **P-102**

Sample Date: 4/10/26

Concrete Grade: **DM, 4500HP**

Contractor: _____

Dates Test Represents: 4/11/2026 through 4/17/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1400	8.34	2.69	46.7
26A	58-003	Stoneco	420	2.50	2.69	14.0
2NS	63-092	Grange Hall	1180	7.06	2.68	39.3
Total Wt			3000	17.90		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"	99.9	100.0	100.0	100.0	0.0	0.0
3/4"	80.3	100.0	100.0	90.8	9.1	9.2
1/2"	36.5	98.5	100.0	70.2	20.7	29.8
3/8"	15.6	77.4	100.0	57.4	12.7	42.6
#4	2.8	7.7	97.5	40.7	16.7	59.3
#8	1.8	1.6	83.7	34.0	6.7	66.0
#16	1.5	1.5	68.1	27.7	6.3	72.3
#30	1.5	1.4	48.0	19.8	7.9	80.2
#50	1.4	1.3	19.5	8.5	11.3	91.5
#100	1.3	1.2	2.9	1.9	6.6	98.1
LBW	1.1	1.1	0.7	0.9	1.0	99.1

*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.

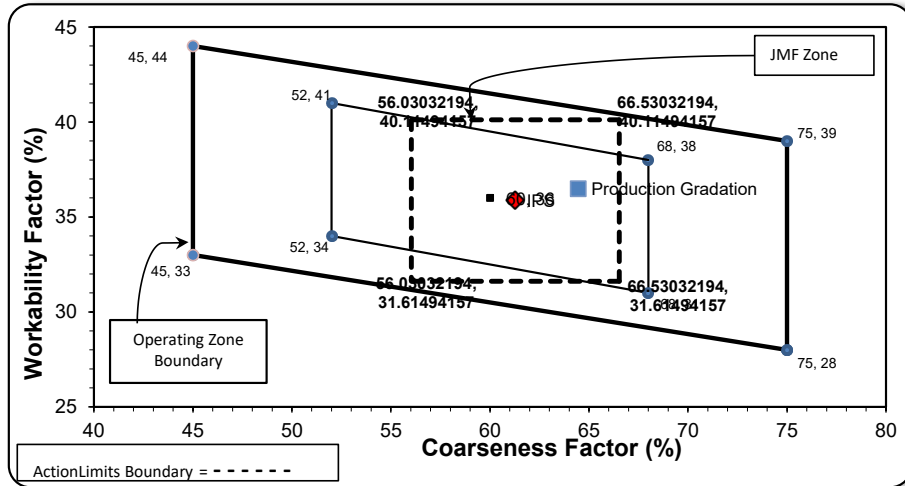
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	64	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
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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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#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: 4/10/26

Concrete Grade: **DM, 4500HP**

Contractor: _____

Dates Test Represents: 4/11/2026 through 4/17/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1400	8.34	2.69	46.7
26A	58-003	Stoneco	420	2.50	2.69	14.0
2NS	63-092	Grange Hall	1180	7.06	2.68	39.3
Total Wt			3000	17.90		100.0

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1"	99.9	100.0	100.0	100.0	0.0	0.0
3/4"	80.3	100.0	100.0	90.8	9.1	9.2
1/2"	36.5	98.5	100.0	70.2	20.7	29.8
3/8"	15.6	77.4	100.0	57.4	12.7	42.6
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#30	1.5	1.4	48.0	19.8	7.9	80.2
#50	1.4	1.3	19.5	8.5	11.3	91.5
#100	1.3	1.2	2.9	1.9	6.6	98.1
LBW	1.1	1.1	0.7	0.9	1.0	99.1

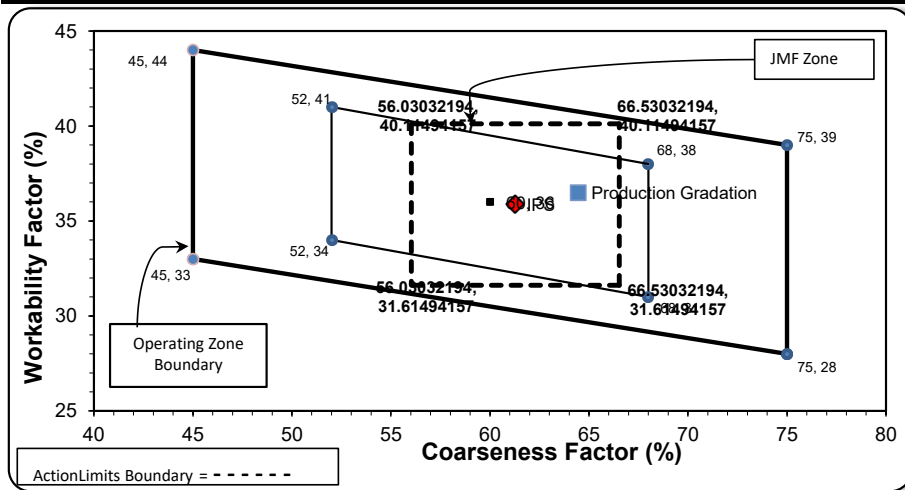
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 ***% Retained must be at least 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.

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

Coarseness Factor:	64	Workability Factor:	34	Adjusted WF	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
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1.5"	100.0	0.0	0.0
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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

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