

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **p11**

Sample Date: **1/27/25**

Dates Test Represents: **1/28/2025** through **2/3/2025**

Concrete Grade: **DM, 4500HP**

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1450	8.87	2.62	49.9
26A	71-47	Presque Isle	305	1.87	2.62	10.5
2NS	63-115	Ray Rd	1150	6.95	2.65	39.6
Total Wt			2905	17.69		100.0

<----- 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"	97.1	100.0	100.0	98.6	1.4	1.4
3/4"	77.4	100.0	100.0	88.7	9.8	11.3
1/2"	32.3	93.0	100.0	65.5	23.2	34.5
3/8"	15.1	77.1	100.0	55.2	10.3	44.8
#4	1.7	14.0	99.5	41.7	13.5	58.3
#8	1.2	3.9	79.9	32.6	9.1	67.4
#16	1.0	2.4	63.7	26.0	6.7	74.0
#30	0.9	2.1	48.2	19.8	6.2	80.2
#50	0.9	1.9	25.6	10.8	9.0	89.2
#100	0.8	1.8	5.9	2.9	7.9	97.1
LBW	0.6	1.5	0.9	0.8	2.1	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.

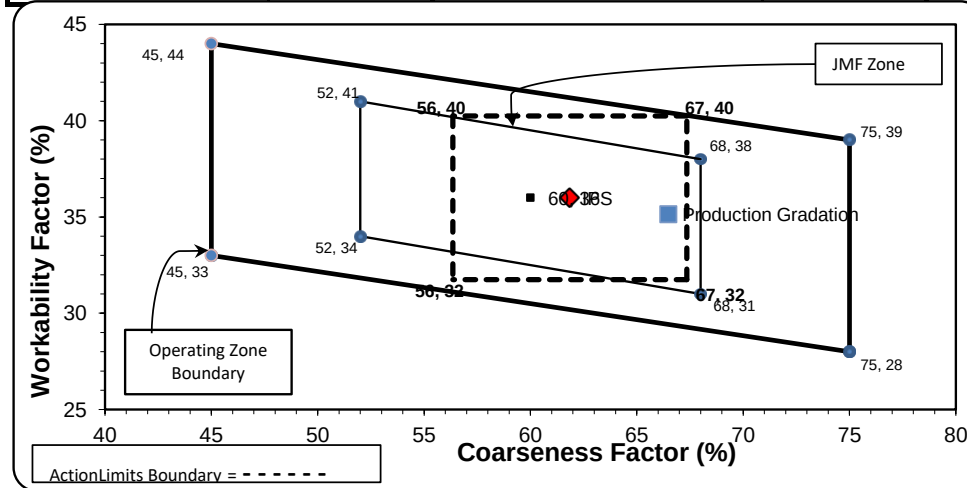


Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	66	Workability Factor:	33	35.1
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Coarseness Factor:		62	
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"	100.0	0.0	0.0
3/4"	95.0	5.0	5.0
1/2"	72.3	22.8	27.7
3/8"	60.4	11.8	39.6
#4	42.6	17.8	57.4
#8	36.0	6.6	64.0
#16	29.5	6.5	70.5
#30	20.3	9.2	79.7
#50	9.5	10.8	90.5
#100	3.4	6.1	96.6
LBW	1.3	2.1	98.7

PREPARED BY:
 SM, LLC Technical Service

Approved By:

[Signature]

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-02**

Sample Date: 1/27/25

Concrete Grade: **DM, 4500HP**

Contractor: _____

Dates Test Represents: 1/28/2025 through 2/3/2025

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1450	8.87	2.62	49.9
26A	71-47	Presque Isle	305	1.87	2.62	10.5
2NS	63-115	Ray Rd	1150	6.95	2.65	39.6
Total Wt			2905	17.69		100.0

<----- 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"	97.1	100.0	100.0	98.6	1.4	1.4
3/4"	77.4	100.0	100.0	88.7	9.8	11.3
1/2"	32.3	93.0	100.0	65.5	23.2	34.5
3/8"	15.1	77.1	100.0	55.2	10.3	44.8
#4	1.7	14.0	99.5	41.7	13.5	58.3
#8	1.2	3.9	79.9	32.6	9.1	67.4
#16	1.0	2.4	63.7	26.0	6.7	74.0
#30	0.9	2.1	48.2	19.8	6.2	80.2
#50	0.9	1.9	25.6	10.8	9.0	89.2
#100	0.8	1.8	5.9	2.9	7.9	97.1
LBW	0.6	1.5	0.9	0.8	2.1	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.



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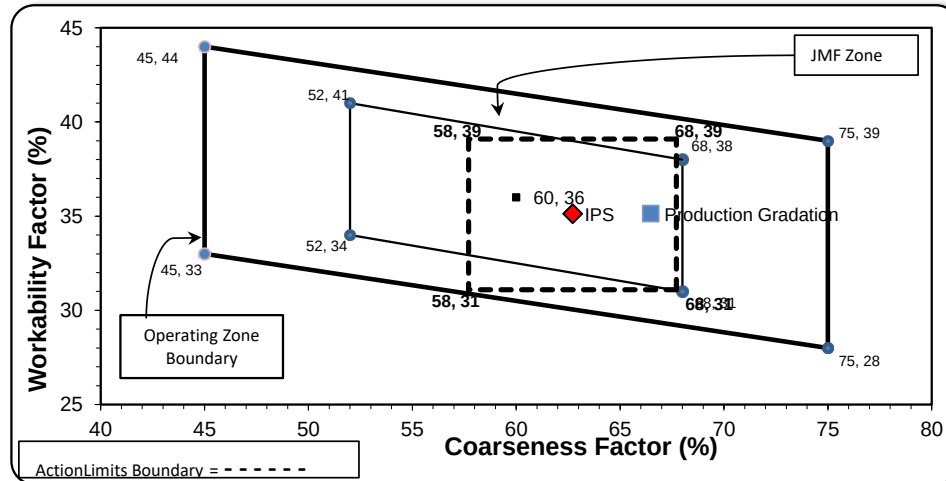
Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	66	Workability Factor:	33	35.1
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Coarseness Factor:	63
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Workability Factor:	35
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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"	100.0	0.0	0.0
3/4"	95.1	4.9	4.9
1/2"	74.6	20.5	25.4
3/8"	59.3	15.3	40.7
#4	42.1	17.2	57.9
#8	35.1	7.1	64.9
#16	29.2	5.9	70.8
#30	21.9	7.3	78.1
#50	9.6	12.4	90.4
#100	2.4	7.2	97.6
LBW	0.9	1.5	99.1

PREPARED BY:
SM, LLC Technical Service

Approved By:

[Signature]