

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-103**

Contractor: _____

Sample Date: 10/20/25

Concrete Grade: **P1M, 3500HP, 4000HP**

Dates Test Represents: 10/21/2025 through 10/27/2025

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	58-003	Stoneco	1350	8.04	2.69	43.3
IA	58-003	Stoneco	570	3.40	2.69	18.3
2NS	63-114	Highland	1200	7.26	2.65	38.5
Total Wt			3120	18.70		100.0

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

Sieve	CA	IA	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"	66.8	100.0	100.0	85.6	14.4	14.4
3/4"	28.2	100.0	100.0	68.9	16.7	31.1
1/2"	14.7	90.8	100.0	61.4	7.5	38.6
3/8"	9.7	77.3	100.0	56.8	4.6	43.2
#4	2.2	19.3	98.8	42.5	14.3	57.5
#8	1.4	3.0	83.7	33.3	9.1	66.7
#16	1.2	1.6	64.8	25.7	7.6	74.3
#30	1.2	1.3	45.3	18.2	7.6	81.8
#50	1.2	1.2	20.2	8.5	9.7	91.5
#100	1.2	1.2	3.9	2.2	6.3	97.8
LBW	1.0	1.1	0.6	0.9	1.4	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 8% for the 1" sieve when a 2" max. size (nom. Max. 1.5") aggregate is used.

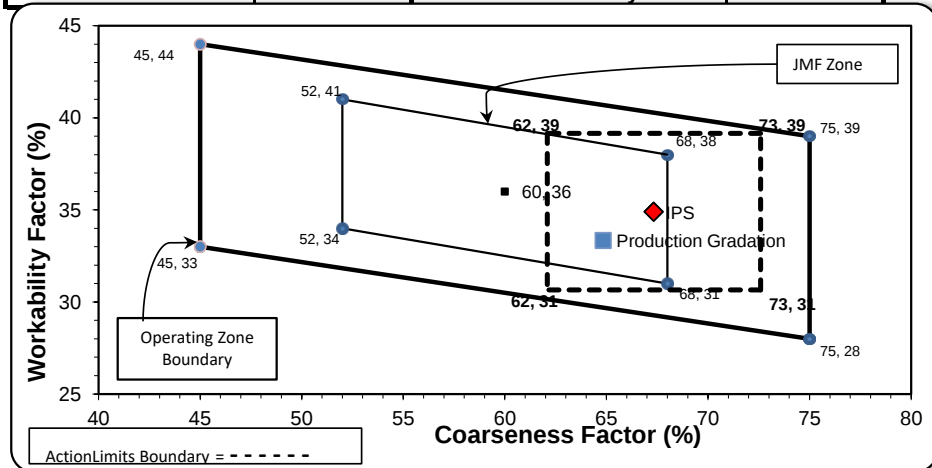


Superior Materials, LLC

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

Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Coarseness Factor: **65** **Workability Factor:** **33**



Initial Production Sample (IPS)

Coarseness Factor:		67	
Workability Factor:		35	
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	85.5	14.5	14.5
3/4"	73.4	12.1	26.6
1/2"	61.0	12.4	39.0
3/8"	56.2	4.8	43.8
#4	43.1	13.1	56.9
#8	34.9	8.2	65.1
#16	29.4	5.5	70.6
#30	21.6	7.8	78.4
#50	8.1	13.4	91.9
#100	2.2	5.9	97.8
LBW	1.4	0.8	98.6

PREPARED BY:
SM, LLC Technical Service

Approved BY:

[Signature]

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P11**

Contractor: _____

Sample Date: 10/20/25

Concrete Grade: **P1M, 3500HP, 4000HP**

Dates Test Represents: 10/21/2025 through 10/27/2025

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1000	6.12	2.62	32.6
IA	71-47	Presque Isle	870	5.32	2.62	28.3
2NS	63-115	Ray Rd	1200	7.26	2.65	39.1
Total Wt			3070	18.70		100.0

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

Sieve	CA	IA	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"	42.2	100.0	100.0	81.2	18.8	18.8
3/4"	10.8	98.4	100.0	70.5	10.7	29.5
1/2"	2.8	76.7	100.0	61.7	8.8	38.3
3/8"	2.2	46.8	100.0	53.1	8.7	46.9
#4	1.9	9.8	97.2	41.4	11.7	58.6
#8	1.8	3.8	81.9	33.7	7.7	66.3
#16	1.7	2.8	63.8	26.3	7.4	73.7
#30	1.7	2.6	47.0	19.7	6.6	80.3
#50	1.7	2.5	23.8	10.6	9.1	89.4
#100	1.6	2.4	5.6	3.4	7.2	96.6
LBW	1.3	2.1	1.0	1.4	2.0	98.6

*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 8% for the 1" sieve when a 2" max. size (nom. Max. 1.5") aggregate is used.

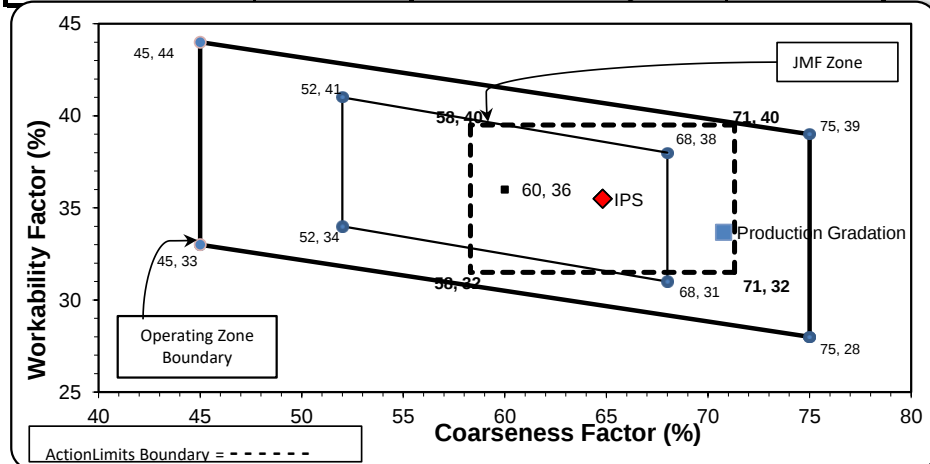


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30701 W. 10 Mile Rd.
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Farmington Hills, MI 48336

Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Coarseness Factor:	71	Workability Factor:	34
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Initial Production Sample (IPS)

Coarseness Factor:		65	
Workability Factor:		36	
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	99.0	0.6	0.6
1"	84.0	15.3	16.0
3/4"	73.5	10.5	26.5
1/2"	65.2	8.2	34.8
3/8"	58.2	7.1	41.8
#4	44.1	14.1	55.9
#8	35.5	8.6	64.5
#16	29.1	6.4	70.9
#30	21.9	7.3	78.1
#50	9.6	12.2	90.4
#100	2.6	7.1	97.4
LBW	1.0	1.6	99.0

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SM, LLC Technical Service

Approved By:

[Signature]