

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-102**

Contractor: _____

Sample Date: 10/6/25

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

Dates Test Represents: 10/7/2025 through 10/13/2025

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"	66.2	100.0	100.0	85.4	14.6	14.6
3/4"	41.3	100.0	100.0	74.6	10.8	25.4
1/2"	17.4	88.2	100.0	62.1	12.5	37.9
3/8"	11.0	73.4	100.0	56.6	5.5	43.4
#4	4.4	17.0	98.7	43.0	13.7	57.0
#8	3.1	2.4	83.8	34.0	9.0	66.0
#16	2.6	1.6	64.8	26.3	7.7	73.7
#30	2.1	1.4	44.9	18.4	7.9	81.6
#50	1.7	1.1	21.9	9.4	9.1	90.6
#100	1.4	0.9	4.9	2.7	6.7	97.3
LBW	1.0	0.9	0.5	0.8	1.9	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 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Superior Materials, LLC

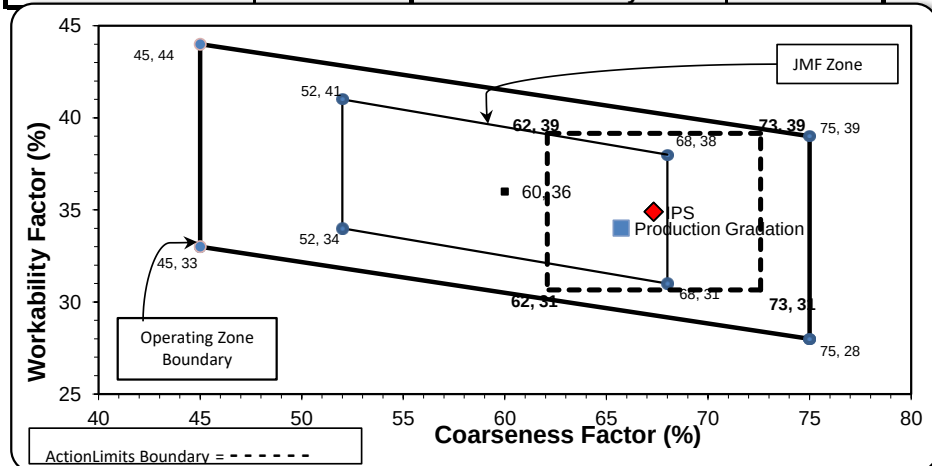
30701 W. 10 Mile Rd.

Suite 500

Farmington Hills, MI 48336

Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Coarseness Factor:	66	Workability Factor:	34
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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 #: **P-103**

Contractor: _____

Sample Date: 10/6/25

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

Dates Test Represents: 10/7/2025 through 10/13/2025

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"	66.2	100.0	100.0	85.4	14.6	14.6
3/4"	41.3	100.0	100.0	74.6	10.8	25.4
1/2"	17.4	88.2	100.0	62.1	12.5	37.9
3/8"	11.0	73.4	100.0	56.6	5.5	43.4
#4	4.4	17.0	98.7	43.0	13.7	57.0
#8	3.1	2.4	83.8	34.0	9.0	66.0
#16	2.6	1.6	64.8	26.3	7.7	73.7
#30	2.1	1.4	44.9	18.4	7.9	81.6
#50	1.7	1.1	21.9	9.4	9.1	90.6
#100	1.4	0.9	4.9	2.7	6.7	97.3
LBW	1.0	0.9	0.5	0.8	1.9	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 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Superior Materials, LLC

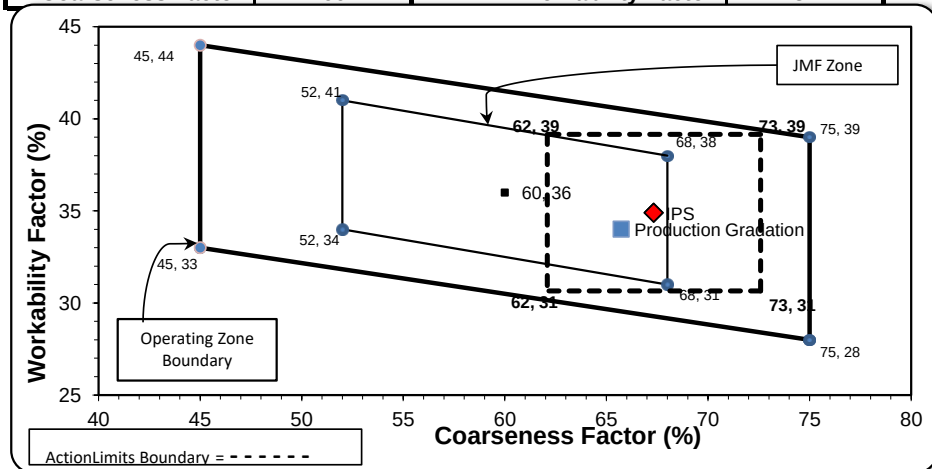
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Coarseness Factor:	66	Workability Factor:	34
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Initial Production Sample (IPS)

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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: 10/6/25

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

Dates Test Represents: 10/7/2025 through 10/13/2025

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1070	6.54	2.62	34.9
IA	71-47	Presque Isle	800	4.89	2.62	26.1
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"	96.5	100.0	100.0	98.8	1.2	1.2
1"	43.9	100.0	100.0	80.4	18.3	19.6
3/4"	8.2	99.0	100.0	67.7	12.7	32.3
1/2"	1.5	80.8	100.0	60.7	7.1	39.3
3/8"	1.4	58.5	100.0	54.8	5.8	45.2
#4	1.2	15.5	97.1	42.4	12.4	57.6
#8	1.2	5.9	80.9	33.6	8.8	66.4
#16	1.2	3.8	62.5	25.8	7.7	74.2
#30	1.1	3.3	46.1	19.3	6.6	80.7
#50	1.1	3.2	24.5	10.8	8.5	89.2
#100	1.1	3.0	6.5	3.7	7.1	96.3
LBW	0.8	2.7	1.0	1.4	2.3	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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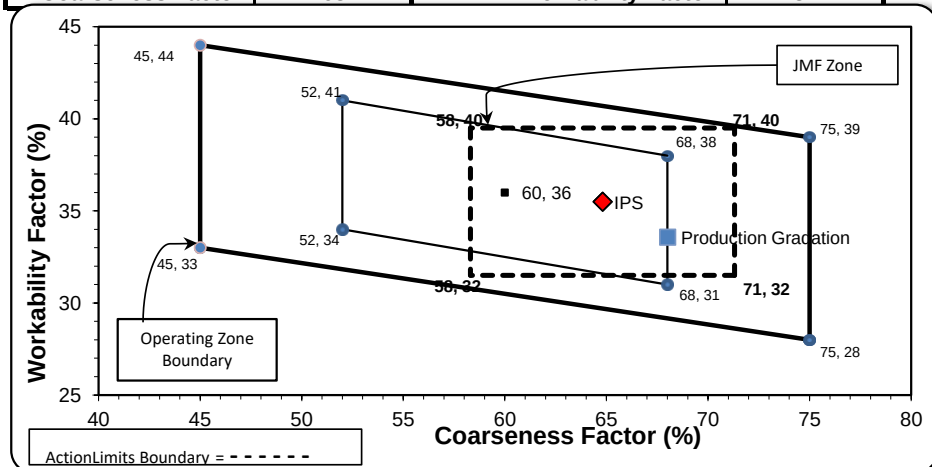
30701 W. 10 Mile Rd.

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Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Coarseness Factor:	68	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

PREPARED BY:
SM, LLC Technical Service

Approved By:

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-O2**

Contractor: _____

Sample Date: 10/6/25

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

Dates Test Represents: 10/7/2025 through 10/13/2025

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1070	6.54	2.62	34.9
IA	71-47	Presque Isle	800	4.89	2.62	26.1
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"	96.5	100.0	100.0	98.8	1.2	1.2
1"	43.9	100.0	100.0	80.4	18.3	19.6
3/4"	8.2	99.0	100.0	67.7	12.7	32.3
1/2"	1.5	80.8	100.0	60.7	7.1	39.3
3/8"	1.4	58.5	100.0	54.8	5.8	45.2
#4	1.2	15.5	97.1	42.4	12.4	57.6
#8	1.2	5.9	80.9	33.6	8.8	66.4
#16	1.2	3.8	62.5	25.8	7.7	74.2
#30	1.1	3.3	46.1	19.3	6.6	80.7
#50	1.1	3.2	24.5	10.8	8.5	89.2
#100	1.1	3.0	6.5	3.7	7.1	96.3
LBW	0.8	2.7	1.0	1.4	2.3	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.

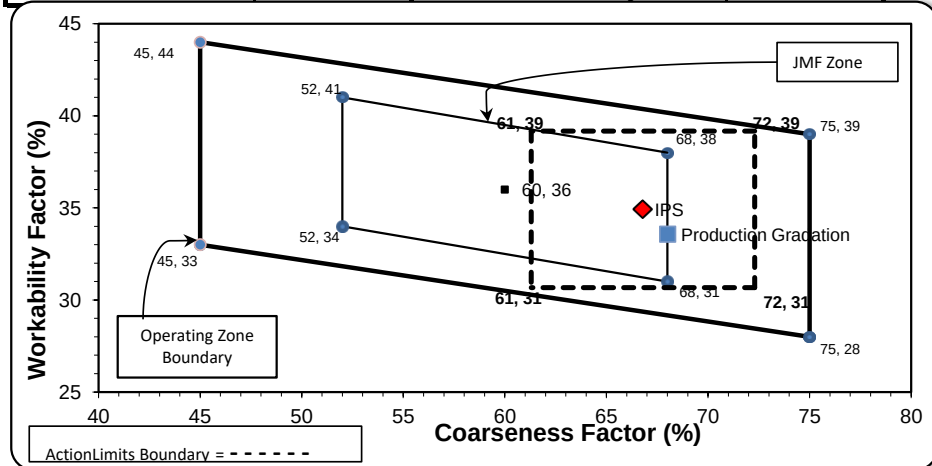
*% Retained must be at least 8% for the 1" sieve when a 2" max. size (nom. Max. 1.5") aggregate is used.



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Coarseness Factor:	68	Workability Factor:	34
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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"	85.0	15.0	15.0
3/4"	72.3	12.7	27.7
1/2"	64.5	7.8	35.5
3/8"	56.5	8.0	43.5
#4	42.7	13.8	57.3
#8	34.9	7.8	65.1
#16	29.0	5.9	71.0
#30	21.0	8.0	79.0
#50	8.2	12.8	91.8
#100	1.6	6.5	98.4
LBW	0.7	0.9	99.3

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