Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-102**

Contractor:

Sample Date: 9/29/25

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

Dates Test Represents: 9/30/2025 through 10/6/2025

MDOT No.:

Agg. Class	Pit #	Source	Weight (SSD)	ft³	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%

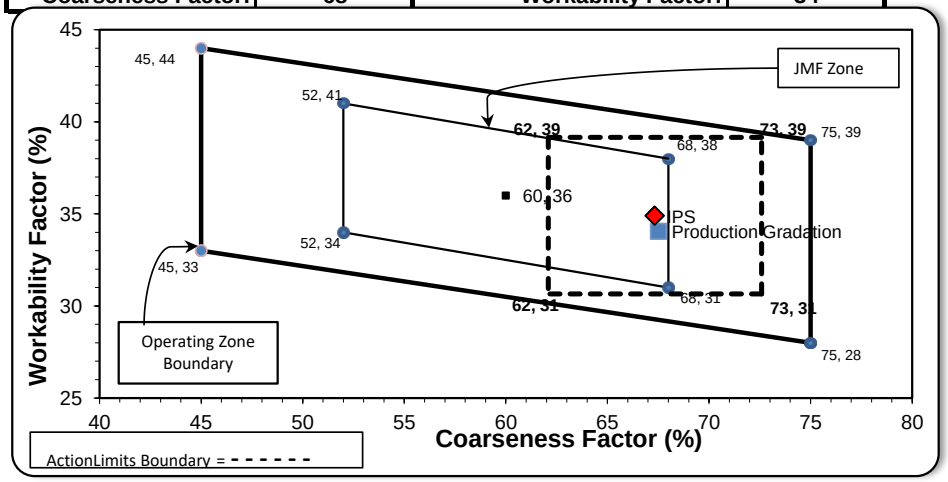
Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	61.8	100.0	100.0	83.5	16.5	16.5
3/4"	35.8	100.0	100.0	72.2	11.3	27.8
1/2"	11.9	86.7	100.0	59.5	12.8	40.6
3/8"	9.1	71.6	100.0	55.5	4.0	44.5
#4	2.2	18.9	99.0	42.5	13.0	57.5
#8	1.4	3.3	85.4	34.1	8.4	65.9
#16	1.2	2.9	67.7	27.1	7.0	72.9
#30	1.2	2.6	49.5	20.0	7.1	80.0
#50	1.1	2.3	23.4	9.9	10.1	90.1
#100	1.0	2.0	3.9	2.3	7.6	97.7
LBW	0.8	1.6	0.6	0.9	1.4	99.1

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

*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.

Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

Coarseness Factor:	68	Workability Factor:	34



Intial 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:

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-103**

Contractor:

Sample Date: 9/29/25

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

Dates Test Represents: 9/30/2025 through 10/6/2025

MDOT No.:

Agg. Class	Pit #	Source	Weight (SSD)	ft³	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"	61.8	100.0	100.0	83.5	16.5	16.5
3/4"	35.8	100.0	100.0	72.2	11.3	27.8
1/2"	11.9	86.7	100.0	59.5	12.8	40.6
3/8"	9.1	71.6	100.0	55.5	4.0	44.5
#4	2.2	18.9	99.0	42.5	13.0	57.5
#8	1.4	3.3	85.4	34.1	8.4	65.9
#16	1.2	2.9	67.7	27.1	7.0	72.9
#30	1.2	2.6	49.5	20.0	7.1	80.0
#50	1.1	2.3	23.4	9.9	10.1	90.1
#100	1.0	2.0	3.9	2.3	7.6	97.7
LBW	0.8	1.6	0.6	0.9	1.4	99.1

Superior Materials, LLC
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Suite 500
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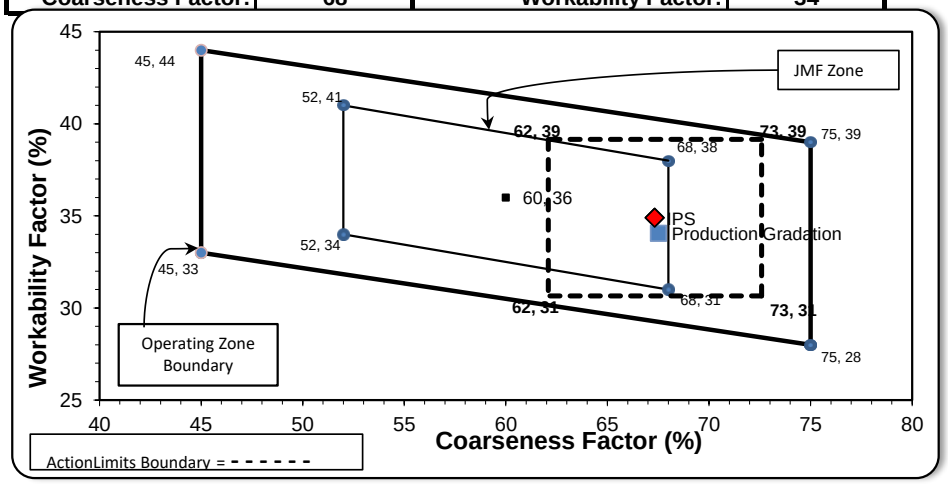
*Maximum % Retained must be above the 3/8" sieve.
*Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
*% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
*% Retained must be at least 8% for the 1" sieve when a 2" max. size (nom. Max. 1.5") aggregate is used.

Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

Coarseness Factor:	68	Workability Factor:	34



Intial 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

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Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P11**

Contractor:

Sample Date: 9/29/25

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

Dates Test Represents: 9/30/2025 through 10/6/2025

MDOT No.:

Agg. Class	Pit #	Source	Weight (SSD)	ft³	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"	100.0	100.0	100.0	100.0	0.0	0.0
1"	61.6	100.0	100.0	86.6	13.4	13.4
3/4"	22.1	98.3	100.0	72.4	14.2	27.6
1/2"	6.9	78.0	100.0	61.8	10.6	38.2
3/8"	5.0	56.1	100.0	55.4	6.4	44.6
#4	3.0	10.6	97.3	41.8	13.6	58.2
#8	2.4	4.0	81.8	33.9	8.0	66.1
#16	2.3	2.8	62.9	26.1	7.7	73.9
#30	2.2	2.5	45.4	19.2	7.0	80.8
#50	2.1	2.4	22.9	10.3	8.9	89.7
#100	2.0	2.2	5.6	3.5	6.8	96.5
LBW	1.7	2.0	0.8	1.4	2.0	98.6

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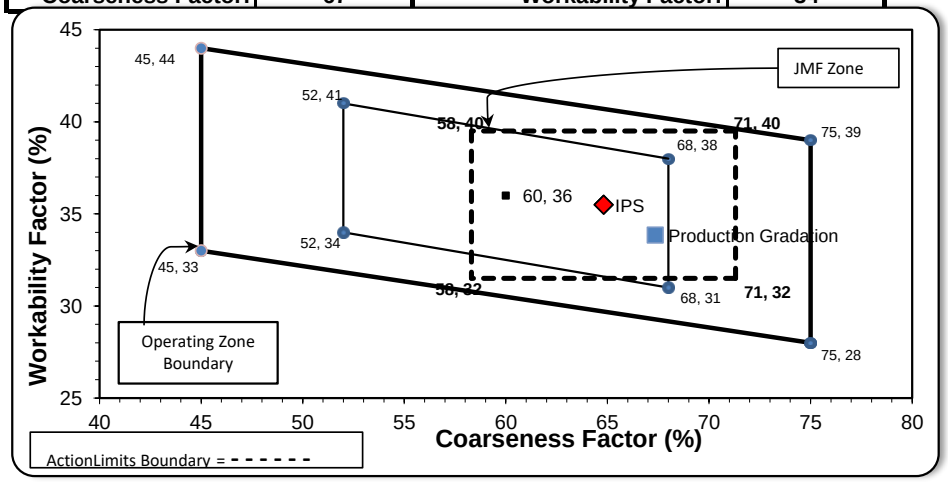
Farmington Hills, MI 48336

*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.

Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

Coarseness Factor:	67	Workability Factor:	34



Intial 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:

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-O2**

Contractor:

Sample Date: 9/29/25

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

Dates Test Represents: 9/30/2025 through 10/6/2025

MDOT No.:

Agg. Class	Pit #	Source	Weight (SSD)	ft³	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"	100.0	100.0	100.0	100.0	0.0	0.0
1"	61.6	100.0	100.0	86.6	13.4	13.4
3/4"	22.1	98.3	100.0	72.4	14.2	27.6
1/2"	6.9	78.0	100.0	61.8	10.6	38.2
3/8"	5.0	56.1	100.0	55.4	6.4	44.6
#4	3.0	10.6	97.3	41.8	13.6	58.2
#8	2.4	4.0	81.8	33.9	8.0	66.1
#16	2.3	2.8	62.9	26.1	7.7	73.9
#30	2.2	2.5	45.4	19.2	7.0	80.8
#50	2.1	2.4	22.9	10.3	8.9	89.7
#100	2.0	2.2	5.6	3.5	6.8	96.5
LBW	1.7	2.0	0.8	1.4	2.0	98.6

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*Maximum % Retained must be above the 3/8" sieve.
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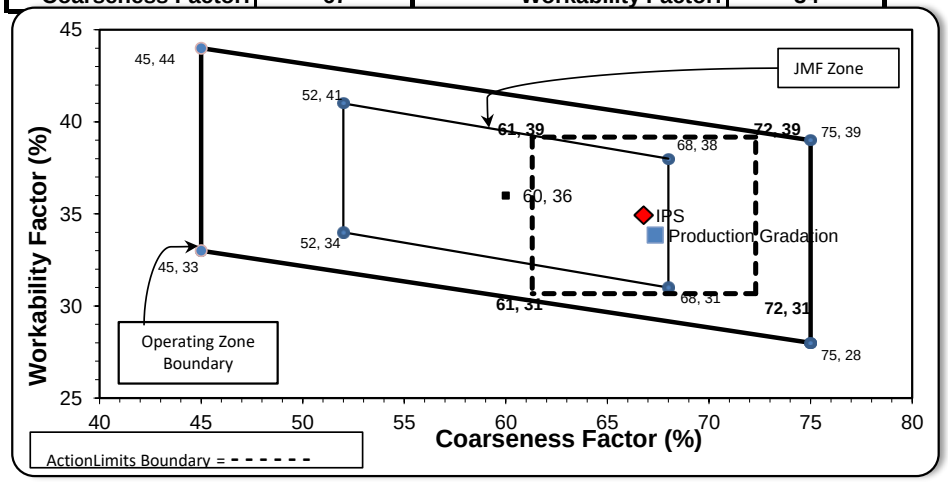
*% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
*% Retained must be at least 8% for the 1" sieve when a 2" max. size (nom. Max. 1.5") aggregate is used.

Production Gradation ○ Batch Plant Gradations ◉ Aggregate SupplierGradations

Coarseness Factor:	67	Workability Factor:	34



Intial 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

PREPARED BY:
SM, LLC Technical Service

Approved By: