

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-103**

Sample Date: 9/29/25

Concrete Grade: **S2M, 3500HP**

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

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1600	9.53	2.69	51.6
26A	58-003	Stoneco	300	1.79	2.69	9.7
2NS	63-114	Highland	1200	7.26	2.65	38.7
Total Wt			3100	18.58		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"	99.9	100.0	100.0	99.9	0.1	0.1
3/4"	83.0	100.0	100.0	91.2	8.7	8.8
1/2"	41.6	100.0	100.0	69.9	21.4	30.1
3/8"	23.0	84.8	100.0	58.8	11.1	41.2
#4	3.2	11.7	99.0	41.1	17.7	58.9
#8	1.5	2.2	85.4	34.0	7.1	66.0
#16	1.2	2.0	67.7	27.0	7.0	73.0
#30	1.1	1.7	49.5	19.9	7.1	80.1
#50	1.1	1.3	23.4	9.8	10.1	90.2
#100	1.1	1.2	3.9	2.2	7.6	97.8
LBW	0.9	1.1	0.6	0.8	1.4	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

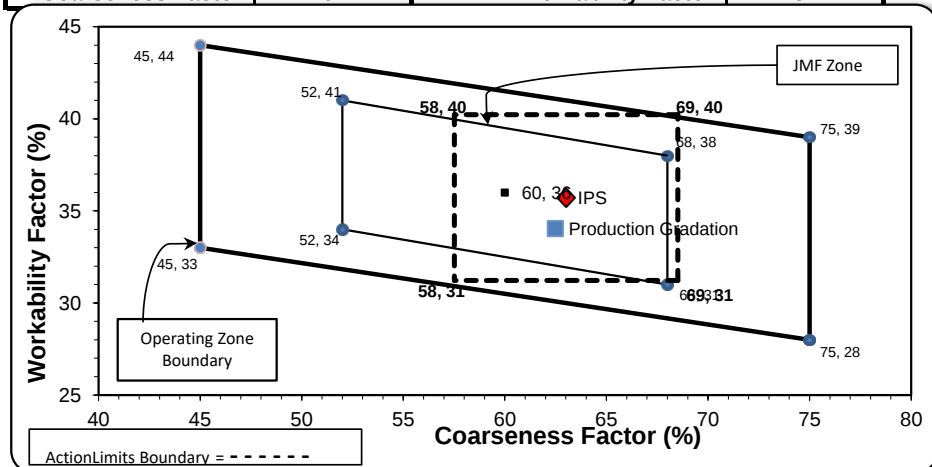
30701 W. 10 Mile Rd.

Suite 500

Farmington Hills, MI 48336

Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Coarseness Factor:	62	Workability Factor:	34
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Initial Production Sample (IPS)

Coarseness Factor:		63	
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"	99.2	0.8	0.8
3/4"	90.9	8.3	9.1
1/2"	71.3	19.6	28.7
3/8"	59.5	11.8	40.5
#4	43.8	15.7	56.2
#8	35.7	8.1	64.3
#16	27.0	8.7	73.0
#30	18.6	8.4	81.4
#50	6.8	11.8	93.2
#100	1.4	5.4	98.6
LBW	0.6	0.8	99.4

PREPARED BY:
SM, LLC Technical Service

Approved BY:

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **p11**

Sample Date: 9/29/25

Concrete Grade: **S2M, 3500HP**

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

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1420	8.69	2.62	46.6
26A	71-47	Presque Isle	400	2.45	2.62	13.1
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
Total Wt			3050	18.57		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"	95.4	100.0	100.0	97.9	2.1	2.1
3/4"	78.2	100.0	100.0	89.9	8.0	10.1
1/2"	33.9	98.7	100.0	69.1	20.8	30.9
3/8"	15.5	84.5	100.0	58.6	10.4	41.4
#4	1.8	15.5	97.3	42.1	16.5	57.9
#8	1.4	4.8	81.8	34.3	7.8	65.7
#16	1.3	2.9	62.9	26.4	7.9	73.6
#30	1.3	2.5	45.4	19.2	7.1	80.8
#50	1.2	2.3	22.9	10.1	9.1	89.9
#100	1.2	2.2	5.6	3.1	7.0	96.9
LBW	1.0	2.0	0.8	1.1	2.1	98.9

*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

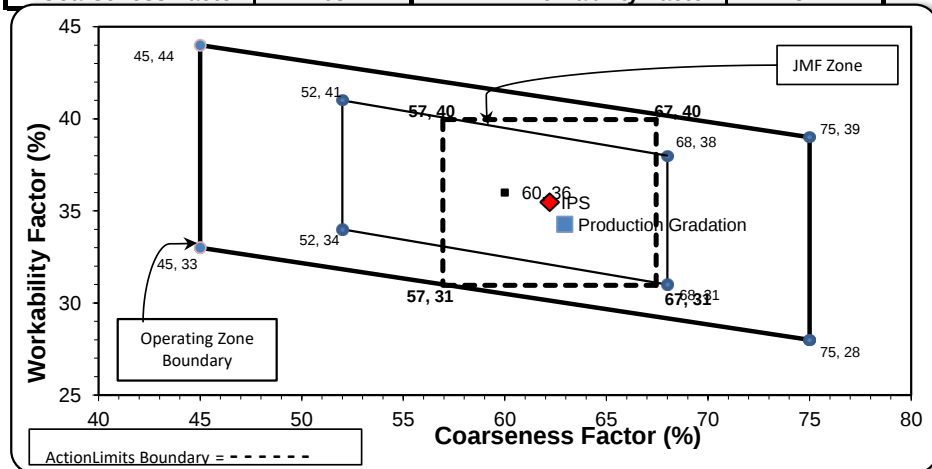
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Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Coarseness Factor:	63	Workability Factor:	34
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Initial Production Sample (IPS)

Coarseness Factor:		62	
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"	100.0	0.0	0.0
3/4"	94.0	6.0	6.0
1/2"	70.2	23.7	29.8
3/8"	59.9	10.4	40.1
#4	42.7	17.2	57.3
#8	35.5	7.2	64.5
#16	28.4	7.0	71.6
#30	19.2	9.2	80.8
#50	8.9	10.3	91.1
#100	3.1	5.9	96.9
LBW	1.4	1.7	98.6

PREPARED BY:
SM, LLC Technical Service

Approved By:

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-O2**

Sample Date: 9/29/25

Concrete Grade: **S2M, 3500HP**

Contractor: _____

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

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1420	8.69	2.62	46.6
26A	71-47	Presque Isle	400	2.45	2.62	13.1
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
Total Wt			3050	18.57		100.0

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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"	95.4	100.0	100.0	97.9	2.1	2.1
3/4"	78.2	100.0	100.0	89.9	8.0	10.1
1/2"	33.9	98.7	100.0	69.1	20.8	30.9
3/8"	15.5	84.5	100.0	58.6	10.4	41.4
#4	1.8	15.5	97.3	42.1	16.5	57.9
#8	1.4	4.8	81.8	34.3	7.8	65.7
#16	1.3	2.9	62.9	26.4	7.9	73.6
#30	1.3	2.5	45.4	19.2	7.1	80.8
#50	1.2	2.3	22.9	10.1	9.1	89.9
#100	1.2	2.2	5.6	3.1	7.0	96.9
LBW	1.0	2.0	0.8	1.1	2.1	98.9

*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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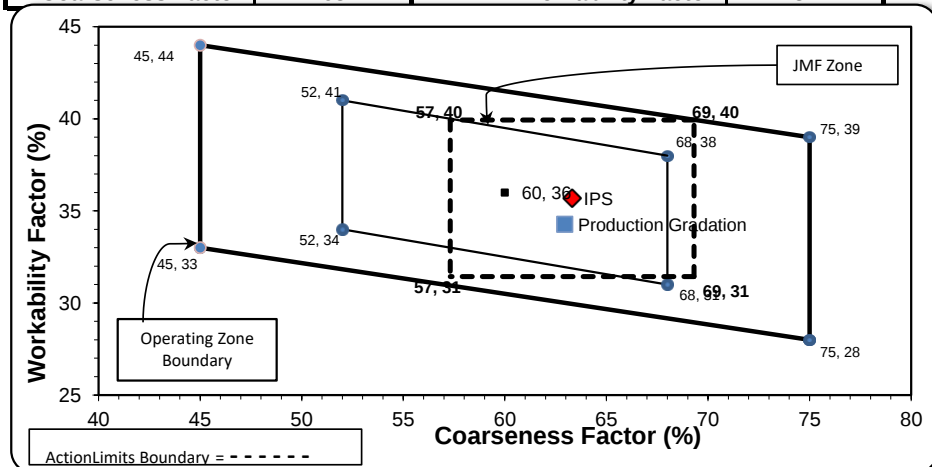
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Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	100.0	0.0	0.0
3/4"	95.6	4.4	4.4
1/2"	73.1	22.6	26.9
3/8"	59.3	13.8	40.7
#4	42.8	16.5	57.2
#8	35.7	7.1	64.3
#16	28.9	6.8	71.1
#30	20.7	8.2	79.3
#50	9.9	10.8	90.1
#100	2.1	7.8	97.9
LBW	0.9	1.2	99.1

PREPARED BY:
SM, LLC Technical Service

Approved By:

[Signature]