Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-11**

Contractor: _____

Sample Date: 7/2/26

Concrete Grade: **P1 3500HP**

Dates Test Represents: 7/3/2026 through 7/9/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1005	6.27	2.57	32.8
IA	71-47	Presque Isle	1010	6.30	2.57	33.0
2NS	63-115	Ray Rd.	1050	6.30	2.67	34.3
		Total Wt	**3065**	**18.87**		100.0

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

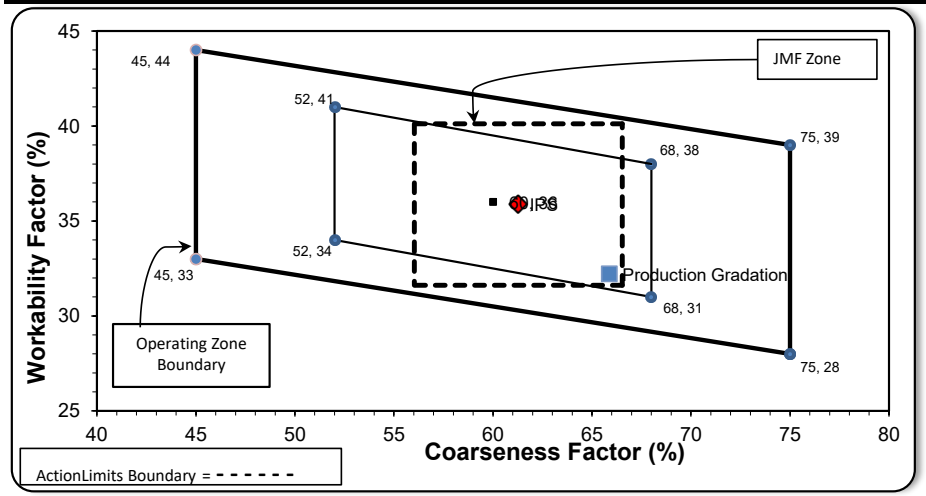
Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	97.0	100.0	100.0	99.0	1.0	1.0
1"	43.2	100.0	100.0	81.4	17.6	18.6
3/4"	12.5	99.1	100.0	71.0	10.4	29.0
1/2"	3.7	84.3	100.0	63.3	7.8	36.7
3/8"	2.7	56.3	100.0	53.7	9.6	46.3
#4	1.7	8.2	96.0	36.1	17.5	63.9
#8	1.5	2.6	82.8	29.7	6.4	70.3
#16	1.5	1.7	63.0	22.6	7.1	77.4
#30	1.4	1.5	46.5	16.9	5.8	83.1
#50	1.3	1.4	23.5	8.9	7.9	91.1
#100	1.2	1.3	5.5	2.7	6.2	97.3
LBW	1.1	1.1	0.8	1.0	1.7	99.0

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 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

Coarseness Factor:	66	Workability Factor:	30	Adjusted WF 32.2



Intial Production Sample (IPS)

Coarseness Factor:	61
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"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3

PREPARED BY:
SM, LLC Technical Service

Approved By:
Nancy Donahue

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-36**

Contractor: _____

Sample Date: 7/2/26

Concrete Grade: **P1M, 3500HP**

Dates Test Represents: 7/9/2026 through 7/4/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	890	5.55	2.57	29.1
IA	71-47	Presque Isle	990	6.17	2.57	32.4
2NS	63-115	Ray Rd	1180	7.08	2.67	38.6
		Total Wt	**3060**	**18.81**		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"	95.8	100.0	100.0	98.8	1.2	1.2
1"	22.7	100.0	100.0	77.5	21.3	22.5
3/4"	5.3	98.4	100.0	71.9	5.6	28.1
1/2"	3.0	82.3	100.0	66.1	5.9	33.9
3/8"	2.5	58.4	100.0	58.2	7.9	41.8
#4	1.8	13.6	98.5	42.9	15.3	57.1
#8	1.5	5.7	83.8	34.6	8.3	65.4
#16	1.4	4.4	65.7	27.2	7.4	72.8
#30	1.3	3.9	45.1	19.0	8.1	81.0
#50	1.2	3.4	20.4	9.3	9.7	90.7
#100	1.1	3.2	3.9	2.9	6.5	97.1
LBW	0.8	2.8	0.3	1.3	1.6	98.7

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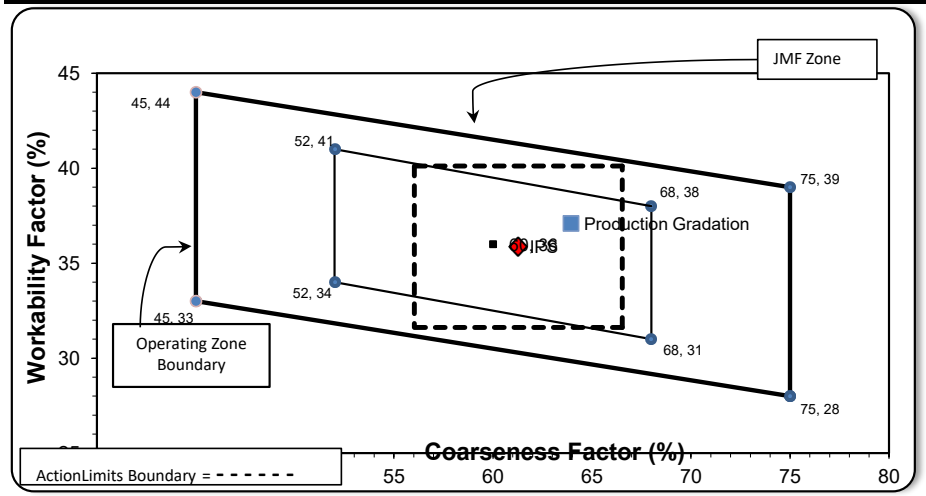
*Maximum % Retained must be above the 3/8" sieve.
*Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
*% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
*% Retained must be at least 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation ◉ Batch Plant Gradations ○ Aggregate Supplier Gradations

Coarseness Factor:	64	Workability Factor:	35	Adjusted WF 37.1



Intial Production Sample (IPS)

Coarseness Factor:	61
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"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3

PREPARED BY:
SM, LLC Technical Service

Approved By:
Nancy Donahue

Superior Auburn Hills
2470 Auburn Road
Auburn Hills, MI 48432

Daily Summary Report

Date Thursday, July 2 2026

Sample Id	-1989636167	-1989636174	-1989636168	-199040712	-1989636173
Plant	S36 Superior Auburn Hills	S36 Superior Auburn Hills	S36 Superior Auburn Hills	S36 Superior Auburn Hills	S36 Superior Auburn Hills
Product	1022 2NS GR	1051 6AA LS	1067 26A Mod LS	7919 COARSE AGG P1M LS	7920 INTERMED AGG P1M LS
Specification	2NS GR Spec	6AA LS	26A LS Spec	Coarse Agg P1M LS Target	Intermed Agg P1M LS Target
Sample Type	QA	QA	QA	QA	QA
Time	10:30	10:30	10:30	10:30	10:30
2" (50mm)		100.0	100.0	100.0	100.0
1 1/2" (37.5mm)		100.0	100.0	95.8	100.0
1" (25mm)		99.4	100.0	22.7	100.0
3/4" (19mm)		78.0	100.0	5.3	98.4
1/2" (12.5mm)		36.6	97.5	3.0	82.3
3/8" (9.5mm)	100.0	17.3	82.4	2.5	58.4
#4 (4.75mm)	96.3	3.1	17.4	1.8	13.6
#8 (2.36mm)	80.7	2.1	5.5	1.5	5.7
#16 (1.18mm)	64.0	1.9	2.9	1.4	4.4
#30 (.6mm)	47.7	1.8	2.3	1.3	3.9
#50 (.3mm)	25.2	1.8	2.0	1.2	3.5
#100 (.15mm)	6.9	1.7	1.9	1.1	3.2
#200 (75µm)	0.9	1.6	1.8	0.9	2.9
Pan	0.0	0.0	0.0	0.0	0.0
FM	2.79				
Wash Loss (#200/75um)	0.7	1.5	1.7	0.8	2.8
Total Moisture	3.90	3.34	3.38	1.41	3.12

Superior Auburn Hills
2470 Auburn Road
Auburn Hills, MI 48432

Daily Summary Report

Comments

Query Selections
Date Created 07/2/2026
Date Range 07/3/2026 - 07/9/2026
Plant Superior Auburn Hills

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-103**

Contractor: _____

Sample Date: 7/2/26

Concrete Grade: **P1M, 3500HP**

Dates Test Represents: 7/3/2026 through 7/9/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
CA	58-003	Stone Co	1320	7.86	2.69	41.5
IA	58-003	Stone Co	620	3.69	2.69	19.5
2NS	63-114	Highland	1240	7.47	2.66	39.0
		Total Wt	**3180**	**19.03**		100.0

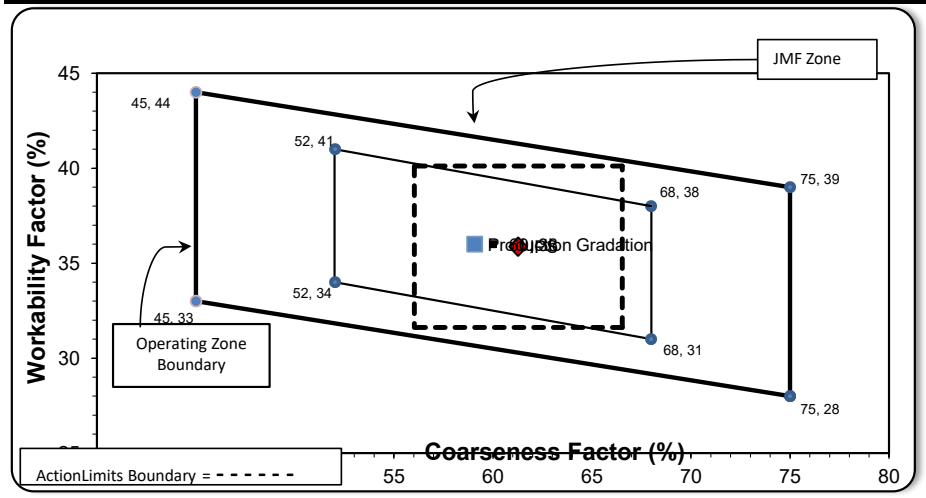
<----- Verify this number is 100%

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"	99.0	100.0	100.0	99.6	0.4	0.4
3/4"	76.6	100.0	100.0	90.3	9.3	9.7
1/2"	30.9	98.4	100.0	71.0	19.3	29.0
3/8"	13.3	83.1	100.0	60.7	10.3	39.3
#4	1.5	25.0	98.5	43.9	16.8	56.1
#8	0.9	3.7	83.1	33.5	10.4	66.5
#16	0.7	1.6	65.7	26.2	7.3	73.8
#30	0.7	1.2	45.0	18.1	8.1	81.9
#50	0.6	1.1	29.6	12.0	6.1	88.0
#100	0.6	1.1	4.0	2.0	10.0	98.0
LBW	0.5	0.9	0.5	0.6	1.4	99.4

*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.

Production Gradation ◉ Batch Plant Gradations ○ Aggregate Supplier Gradations

Coarseness Factor:	59	Workability Factor:	33	Adjusted WF 36.0



Intial Production Sample (IPS)

Coarseness Factor:	61
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"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3

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PREPARED BY:
SM, LLC Technical Service

Approved By:
Nancy Donahue

Daily Summary Report

Date	Thursday, July 02, 2026		
Sample Id	-1989636159	1097071374	-1989636161
Plant	S103 Superior Brighton	S103 Superior Brighton	S103 Superior Brighton
Product	1022 2NS GR	1051 6AA LS	1067 26A Mod LS
Specification	2NS GR Spec	6AA LS	26A Mod LS Spec
Sample Type	QA	QA	QA
Time	11:30	11:30	11:30
2" (50mm)		100.0	100.0
1 1/2" (37.5mm)		100.0	100.0
1" (25mm)		99.0	100.0
3/4" (19mm)		76.6	100.0
1/2" (12.5mm)		30.9	98.4
3/8" (9.5mm)	100.0	13.3	83.1
#4 (4.75mm)	98.5	1.5	25.0
#8 (2.36mm)	83.1	0.9	3.7
#16 (1.18mm)	65.7	0.7	1.6
#30 (.6mm)	45.0	0.7	1.2
#50 (.3mm)	19.6	0.6	1.1
#100 (.15mm)	4.0	0.6	1.1
#200 (75µm)	0.7	0.53	1.0
Pan	0.0	0.00	0.0
FM	2.84		
Wash Loss (#200/75um)	0.5	0.5	0.9
Total Moisture	3.99	3.16	4.58

Daily Summary Report

Comments

Query Selections
Date Created 07/02/2026
Date Range 07/03/2026 - 07/09/2026
Plant Superior Brighton