

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-35**

Sample Date: 8/19/26

Concrete Grade: **S2M-3500HP**

Contractor: _____

Dates Test Represents: 8/20/2026 through 8/26/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	StoneCo	1400	8.34	2.69	45.0
26A	58-003	StoneCo	530	3.16	2.69	17.0
2NS	81-019	Pleasant Lk	1180	7.14	2.65	37.9
Total Wt			3110	18.63		100.0

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



Superior Materials, LLC

30701 W. 10 Mile Rd.

Suite 500

Farmington Hills, MI 48336

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"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	78.0	100.0	100.0	90.1	9.9	9.9
1/2"	33.5	96.5	100.0	69.5	20.6	30.5
3/8"	17.0	72.0	100.0	57.9	11.6	42.1
#4	2.5	14.2	97.6	40.6	17.3	59.4
#8	1.3	3.5	83.8	33.0	7.6	67.0
#16	1.0	2.5	63.5	25.0	8.0	75.0
#30	0.9	2.1	41.6	16.5	8.4	83.5
#50	0.9	1.9	15.6	6.6	9.9	93.4
#100	0.8	1.7	3.2	1.9	4.8	98.1
LBW	0.7	1.6	0.8	0.9	1.0	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 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.

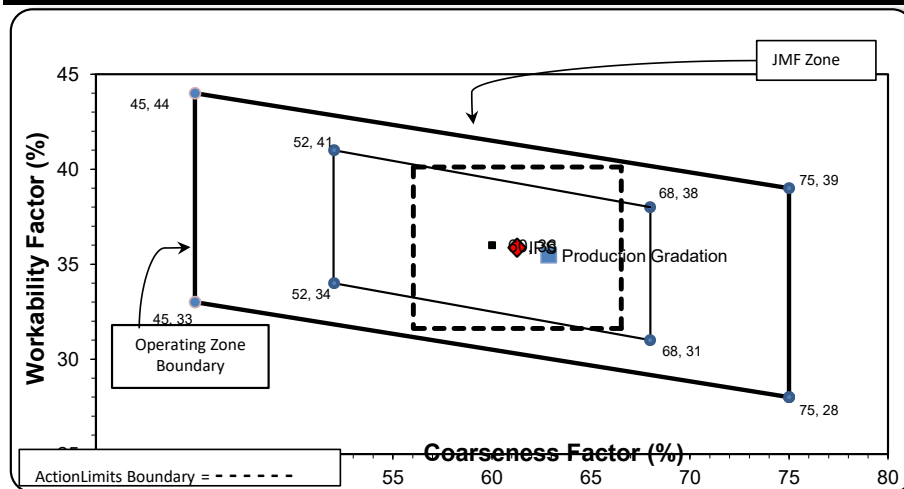
Production Gradation ☒ Batch Plant Gradations ☐ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	63	Workability Factor:	33	35.5
---------------------------	-----------	----------------------------	-----------	-------------

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**

Sample Date: 8/19/26

Concrete Grade: **S2M-3500HP**

Contractor: _____

Dates Test Represents: 8/20/2026 through 8/26/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1680	10.48	2.57	54.9
26A	71-47	Presque Isle	200	1.25	2.57	6.5
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	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"	98.4	100.0	100.0	99.1	0.9	0.9
3/4"	83.5	100.0	100.0	90.9	8.2	9.1
1/2"	46.7	97.6	100.0	70.6	20.4	29.4
3/8"	25.5	83.2	100.0	58.0	12.6	42.0
#4	3.6	20.0	95.4	40.1	17.9	59.9
#8	2.1	6.3	82.3	33.3	6.8	66.7
#16	1.8	3.2	63.3	25.6	7.7	74.4
#30	1.7	2.4	48.0	19.6	6.0	80.4
#50	1.6	2.2	25.8	11.0	8.6	89.0
#100	1.6	1.9	6.9	3.7	7.3	96.3
LBW	1.3	1.7	1.0	1.2	2.5	98.8



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.

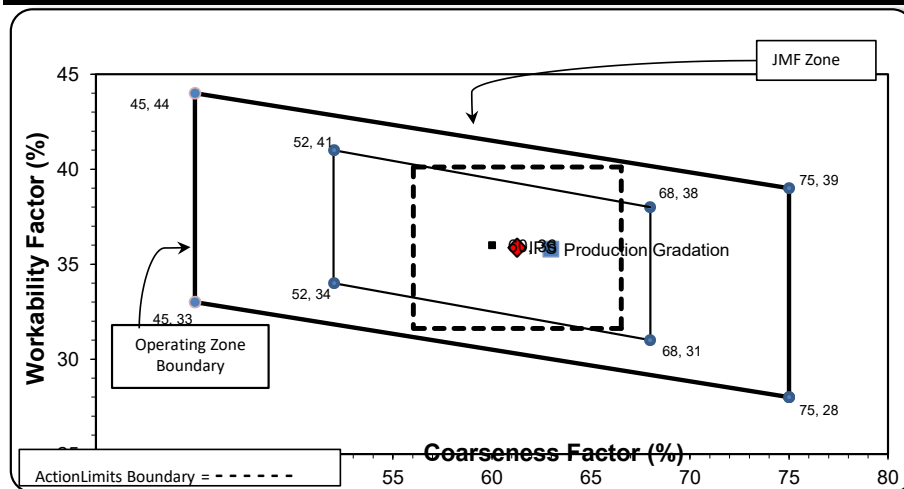
Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	63	Workability Factor:	33	35.8
---------------------------	-----------	----------------------------	-----------	-------------

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-38**

Sample Date: 8/19/26

Concrete Grade: **S2M-3500HP**

Contractor: _____

Dates Test Represents: 8/20/2026 through 8/26/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	StoneCo	1600	9.53	2.69	51.0
26A	58-003	StoneCo	360	2.14	2.69	11.5
2NS	81-019	Pleasant Lk	1180	7.14	2.65	37.6
Total Wt			3140	18.81		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"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	92.2	100.0	100.0	96.0	4.0	4.0
1/2"	56.0	98.4	100.0	77.4	18.6	22.6
3/8"	35.3	29.0	100.0	58.9	18.5	41.1
#4	7.6	7.3	97.6	41.4	17.5	58.6
#8	2.6	3.5	84.0	33.3	8.1	66.7
#16	2.0	2.8	64.8	25.7	7.6	74.3
#30	1.8	2.6	43.1	17.4	8.3	82.6
#50	1.7	2.5	16.6	7.4	10.0	92.6
#100	1.6	2.4	3.8	2.5	4.9	97.5
LBW	1.4	2.3	0.9	1.3	1.2	98.7



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.

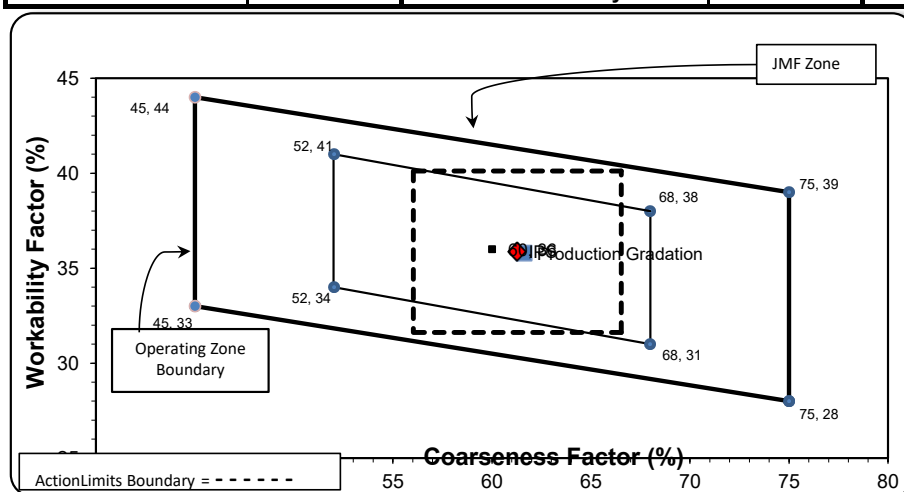
Production Gradation ☒ Batch Plant Gradations ☐ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	62	Workability Factor:	33	35.8
---------------------------	-----------	----------------------------	-----------	-------------

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