

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-35**

Sample Date: 8/6/26

Concrete Grade: **S2M-3500HP**

Contractor: _____

Dates Test Represents: 8/7/2026 through 8/13/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	Stone Co	1600	9.53	2.69	51.0
26A	58-003	Stone Co	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%



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"	99.8	100.0	100.0	99.9	0.1	0.1
3/4"	83.7	100.0	100.0	91.7	8.2	8.3
1/2"	42.1	97.8	100.0	70.2	21.4	29.8
3/8"	24.3	75.2	100.0	58.6	11.7	41.4
#4	3.9	9.6	98.2	40.0	18.6	60.0
#8	1.7	2.0	86.1	33.5	6.5	66.5
#16	1.1	1.4	66.0	25.5	7.9	74.5
#30	1.0	1.4	44.6	17.4	8.1	82.6
#50	0.9	1.3	15.9	6.6	10.8	93.4
#100	0.9	1.2	3.8	2.0	4.6	98.0
LBW	0.9	1.1	0.8	0.9	1.1	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.

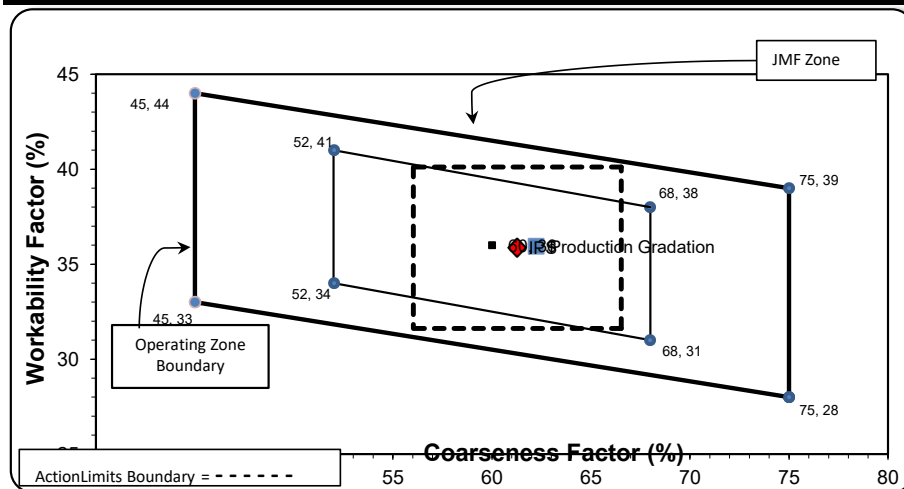
Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	62	Workability Factor:	33	36.0
---------------------------	-----------	----------------------------	-----------	-------------

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: **8/6/26**

Concrete Grade: **S2M-3500HP**

Contractor: _____

Dates Test Represents: **8/7/2026** through **8/13/2026**

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	Stone Co	1600	9.53	2.69	51.0
26A	58-003	Stone Co	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%



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"	99.8	100.0	100.0	99.9	0.1	0.1
3/4"	83.7	100.0	100.0	91.7	8.2	8.3
1/2"	42.1	97.8	100.0	70.2	21.4	29.8
3/8"	24.3	75.2	100.0	58.6	11.7	41.4
#4	3.9	9.6	98.2	40.0	18.6	60.0
#8	1.7	2.0	86.1	33.5	6.5	66.5
#16	1.1	1.4	66.0	25.5	7.9	74.5
#30	1.0	1.4	44.6	17.4	8.1	82.6
#50	0.9	1.3	15.9	6.6	10.8	93.4
#100	0.9	1.2	3.8	2.0	4.6	98.0
LBW	0.9	1.1	0.8	0.9	1.1	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.

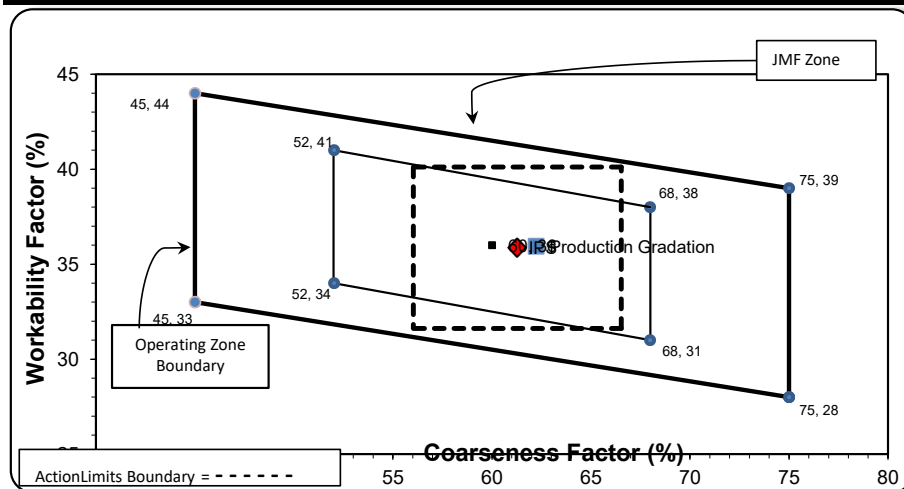
Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	62	Workability Factor:	33	36.0
---------------------------	-----------	----------------------------	-----------	-------------

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-39**

Sample Date: 8/6/26

Concrete Grade: **S2M-3500HP**

Contractor: _____

Dates Test Represents: 8/7/2026 through 8/13/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1400	8.73	2.57	45.8
26A	71-47	Presque Isle	480	2.99	2.57	15.7
2NS	63-0009	Koenig	1180	7.14	2.65	38.6
Total Wt			3060	18.86		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"	96.8	100.0	100.0	98.5	1.5	1.5
3/4"	83.6	100.0	100.0	92.5	6.0	7.5
1/2"	36.3	96.0	100.0	70.2	22.3	29.8
3/8"	20.7	81.3	100.0	60.8	9.4	39.2
#4	4.3	20.1	97.5	42.7	18.1	57.3
#8	2.1	7.2	84.1	34.5	8.2	65.5
#16	1.9	4.1	69.4	28.3	6.2	71.7
#30	1.8	3.2	50.6	20.8	7.4	79.2
#50	1.7	2.8	24.8	10.8	10.1	89.2
#100	1.7	2.6	2.5	2.1	8.6	97.9
LBW	1.3	2.4	0.2	1.0	1.1	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.

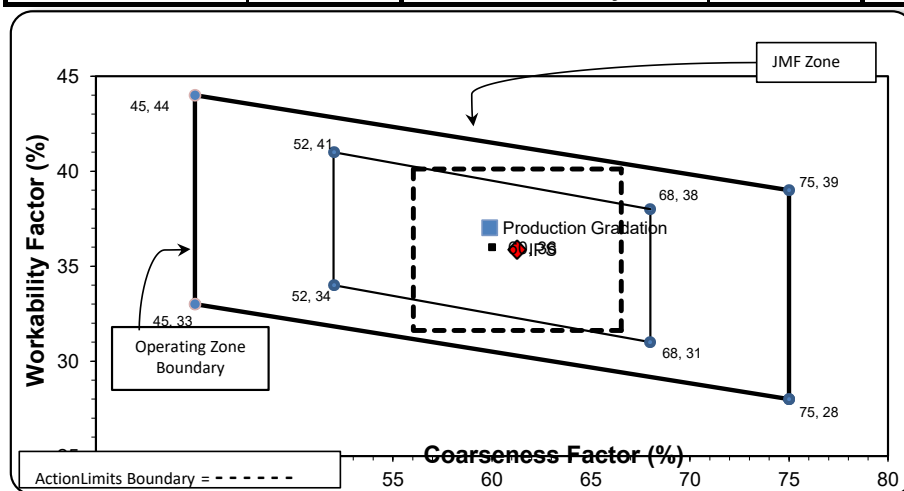
Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	60	Workability Factor:	35	37.0
---------------------------	-----------	----------------------------	-----------	-------------

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