Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-2**

Contractor: _____

Sample Date: 10/28/26

Concrete Grade: **DM-4500HP**

Dates Test Represents: 10/29/2026 through 11/4/2026

1" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1270	7.92	2.57	42.8
26A	71-47	Presque Isle	600	3.74	2.57	20.2
2NS	63-115	Ray Rd	1100	6.60	2.67	37.0
		Total Wt	**2970**	**18.26**		100.0

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

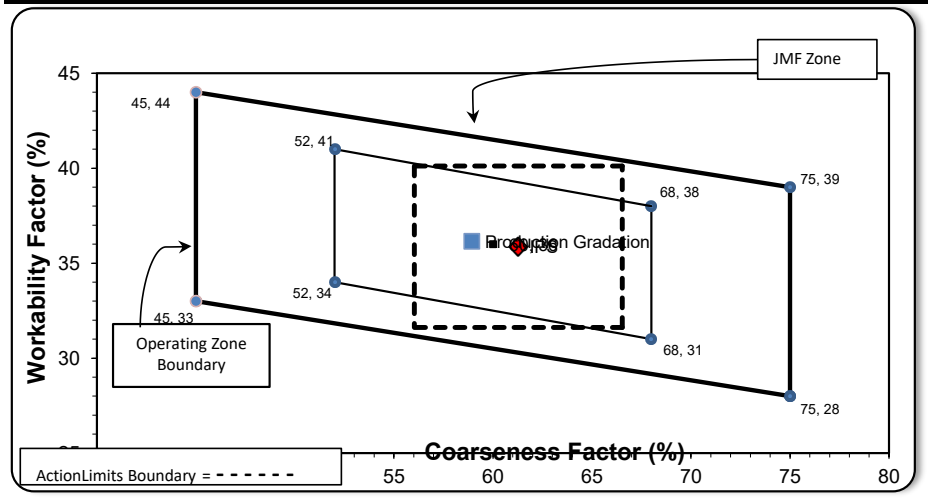
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	99.6	100.0	100.0	99.8	0.2	0.2
3/4"	85.8	100.0	100.0	93.9	5.9	6.1
1/2"	35.4	97.4	100.0	71.9	22.1	28.1
3/8"	16.4	83.4	100.0	60.9	11.0	39.1
#4	2.9	18.2	97.2	40.9	20.0	59.1
#8	2.0	5.6	85.5	33.7	7.3	66.3
#16	1.8	3.1	65.2	25.5	8.1	74.5
#30	1.7	2.3	48.8	19.3	6.3	80.7
#50	1.6	2.2	24.8	10.3	9.0	89.7
#100	1.6	1.9	4.9	2.9	7.4	97.1
LBW	1.2	1.7	0.7	1.1	1.8	98.9

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:	59	Workability Factor:	34	Adjusted WF 36.2



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-35**

Contractor: _____

Sample Date: 10/28/26

Concrete Grade: **DM-4500HP**

Dates Test Represents: 10/29/2026 through 11/4/2026

1" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	StoneCo	1550	9.23	2.69	50.8
26A	58-003	StoneCo	280	1.67	2.69	9.2
2NS	81-019	Pleasant Lk	1220	7.38	2.65	40.0
		Total Wt	**3050**	**18.28**		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"	82.3	100.0	100.0	91.0	9.0	9.0
1/2"	41.0	98.9	100.0	69.9	21.1	30.1
3/8"	23.1	88.7	100.0	59.9	10.0	40.1
#4	3.9	15.9	97.6	42.5	17.4	57.5
#8	1.7	3.3	84.4	34.9	7.6	65.1
#16	1.4	2.2	63.7	26.4	8.5	73.6
#30	1.2	2.0	43.1	18.0	8.4	82.0
#50	1.1	1.9	17.8	7.9	10.2	92.1
#100	1.0	1.8	4.1	2.3	5.5	97.7
LBW	1.0	1.5	1.0	1.0	1.3	99.0

Superior Materials, LLC
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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.

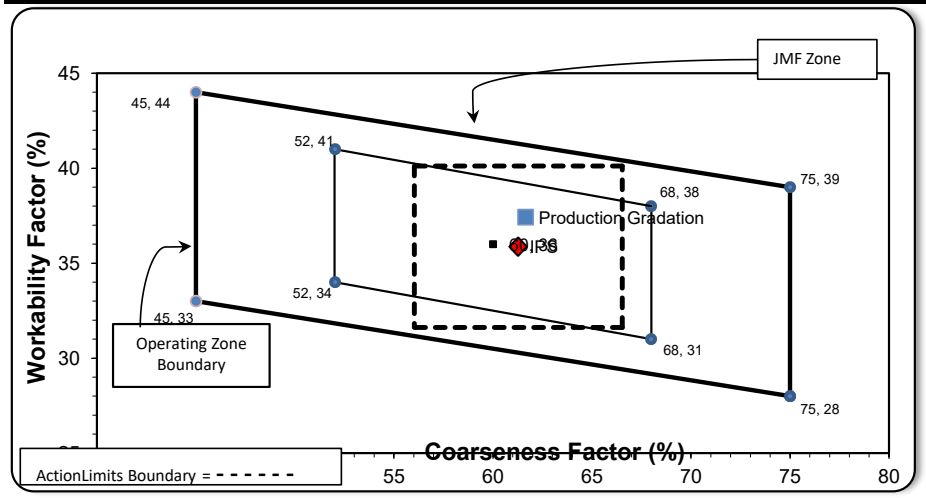
Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

Coarseness Factor:	62	Workability Factor:	35	Adjusted WF 37.4

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-102**

Contractor: _____

Sample Date: 10/28/26

Concrete Grade: **DM-4500HP**

Dates Test Represents: 10/29/2026 through 11/4/2026

1" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	StoneCo	1350	8.04	2.69	44.3
IA	58-003	StoneCo	500	2.98	2.69	16.4
2NS	63-114	Highland	1200	7.23	2.66	39.3
		Total Wt	**3050**	**18.25**		100.0

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

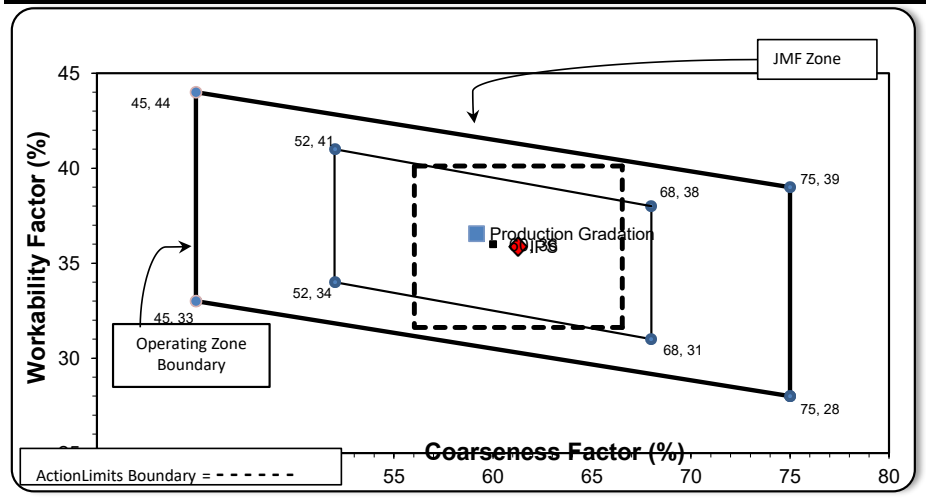
Sieve	6AA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	82.3	100.0	100.0	92.2	7.8	7.8
1/2"	41.0	87.8	100.0	71.9	20.3	28.1
3/8"	23.1	69.6	100.0	61.0	10.9	39.0
#4	3.9	15.8	98.3	43.0	18.0	57.0
#8	1.7	3.0	83.4	34.1	8.9	65.9
#16	1.4	2.1	65.0	26.5	7.5	73.5
#30	1.2	1.9	45.0	18.5	8.0	81.5
#50	1.1	1.7	22.0	9.4	9.1	90.6
#100	1.0	1.6	4.0	2.3	7.1	97.7
LBW	1.0	1.5	0.5	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 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:	34	Adjusted WF 36.6



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-103**

Contractor: _____

Sample Date: 10/28/26

Concrete Grade: **DM-4500HP**

Dates Test Represents: 10/29/2026 through 11/4/2026

1" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	StoneCo	1350	8.04	2.69	44.3
IA	58-003	StoneCo	500	2.98	2.69	16.4
2NS	63-114	Highland	1200	7.23	2.66	39.3
		Total Wt	**3050**	**18.25**		100.0

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

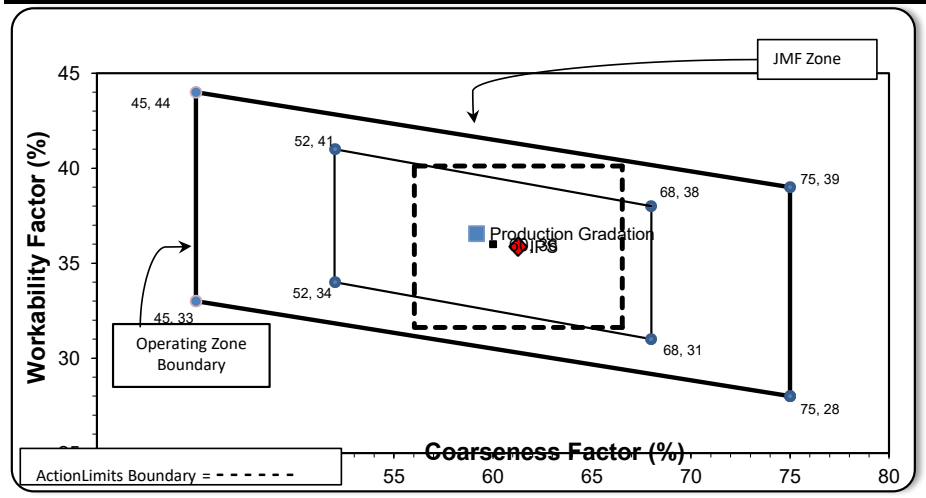
Sieve	6AA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	82.3	100.0	100.0	92.2	7.8	7.8
1/2"	41.0	87.8	100.0	71.9	20.3	28.1
3/8"	23.1	69.6	100.0	61.0	10.9	39.0
#4	3.9	15.8	98.3	43.0	18.0	57.0
#8	1.7	3.0	83.4	34.1	8.9	65.9
#16	1.4	2.1	65.0	26.5	7.5	73.5
#30	1.2	1.9	45.0	18.5	8.0	81.5
#50	1.1	1.7	22.0	9.4	9.1	90.6
#100	1.0	1.6	4.0	2.3	7.1	97.7
LBW	1.0	1.5	0.5	0.9	1.4	99.1

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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:	59	Workability Factor:	34	Adjusted WF 36.6



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-2**

Contractor: _____

Sample Date: 10/28/26

Concrete Grade: **DM-4500HP**

Dates Test Represents: 10/29/2026 through 11/4/2026

5" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1220	7.61	2.57	42.5
26A	71-47	Presque Isle	550	3.43	2.57	19.2
2NS	63-115	Ray Rd	1100	6.60	2.67	38.3
		Total Wt	**2870**	**17.64**		100.0

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

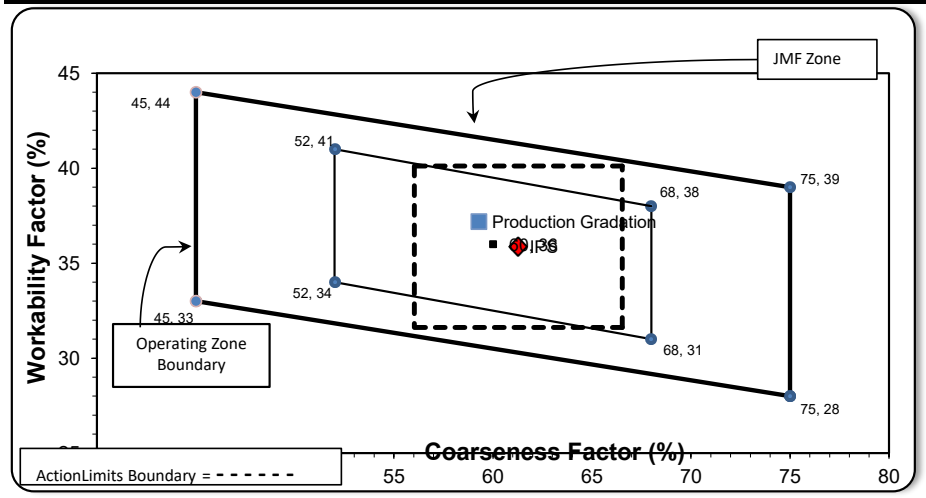
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	99.6	100.0	100.0	99.8	0.2	0.2
3/4"	85.8	100.0	100.0	94.0	5.9	6.0
1/2"	35.4	97.4	100.0	72.0	21.9	28.0
3/8"	16.4	83.4	100.0	61.3	10.8	38.7
#4	2.9	18.2	97.2	42.0	19.3	58.0
#8	2.0	5.6	85.5	34.7	7.3	65.3
#16	1.8	3.1	65.2	26.3	8.3	73.7
#30	1.7	2.3	48.8	19.9	6.5	80.1
#50	1.6	2.2	24.8	10.6	9.3	89.4
#100	1.6	1.9	4.9	2.9	7.7	97.1
LBW	1.2	1.7	0.7	1.1	1.8	98.9

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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:	59	Workability Factor:	35	Adjusted WF 37.2



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-35**

Contractor: _____

Sample Date: 10/28/26

Concrete Grade: **DM-4500HP**

Dates Test Represents: 10/29/2026 through 11/4/2026

5" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	StoneCo	1470	8.76	2.69	49.8
26A	58-003	StoneCo	300	1.79	2.69	10.2
2NS	81-019	Pleasant Lk	1180	7.14	2.65	40.0
		Total Wt	**2950**	**17.68**		100.0

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

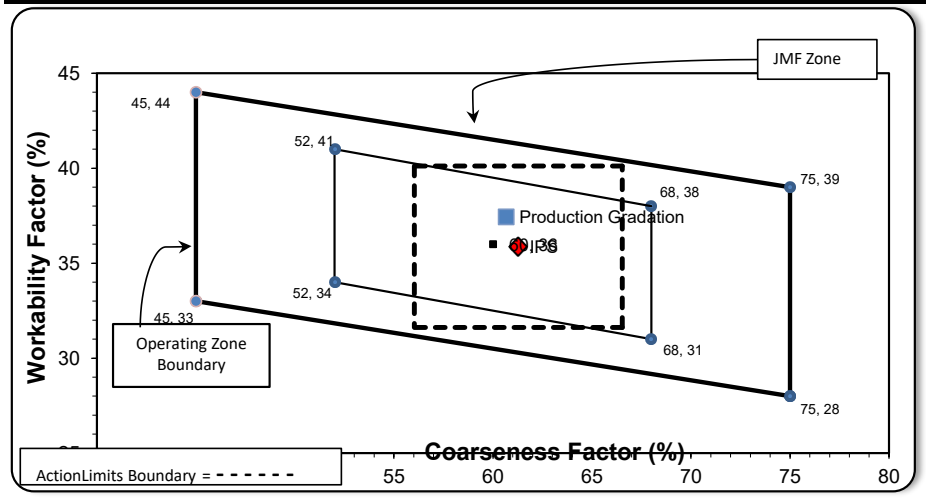
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	82.3	100.0	100.0	91.2	8.8	8.8
1/2"	41.0	98.9	100.0	70.5	20.7	29.5
3/8"	23.1	88.7	100.0	60.5	10.0	39.5
#4	3.9	15.9	97.6	42.6	17.9	57.4
#8	1.7	3.3	84.4	34.9	7.7	65.1
#16	1.4	2.2	63.7	26.4	8.5	73.6
#30	1.2	2.0	43.1	18.0	8.4	82.0
#50	1.1	1.9	17.8	7.9	10.2	92.1
#100	1.0	1.8	4.1	2.3	5.5	97.7
LBW	1.0	1.5	1.0	1.1	1.3	98.9

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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:	61	Workability Factor:	35	Adjusted WF 37.4



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: 10/28/26

Concrete Grade: **DM-4500HP**

Dates Test Represents: 10/29/2026 through 11/4/2026

5" Slump

MDOT No.:

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1160	7.23	2.57	40.6
26A	71-47	Presque Isle	600	3.74	2.57	21.0
2NS	63-115	Ray Rd	1100	6.60	2.67	38.5
		Total Wt	**2860**	**17.58**		100.0

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

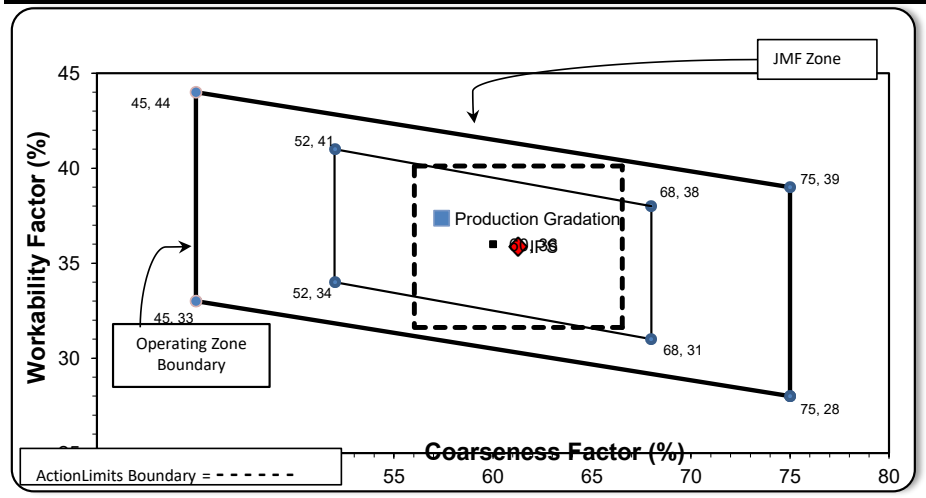
Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

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"	99.6	100.0	100.0	99.8	0.2	0.2
3/4"	85.8	100.0	100.0	94.2	5.6	5.8
1/2"	35.4	97.4	100.0	73.3	21.0	26.7
3/8"	16.4	83.4	100.0	62.6	10.6	37.4
#4	2.9	18.2	97.2	42.4	20.2	57.6
#8	2.0	5.6	85.5	34.9	7.5	65.1
#16	1.8	3.1	65.2	26.5	8.4	73.5
#30	1.7	2.3	48.8	19.9	6.5	80.1
#50	1.6	2.2	24.8	10.6	9.3	89.4
#100	1.6	1.9	4.9	2.9	7.7	97.1
LBW	1.2	1.7	0.7	1.1	1.8	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.

Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

Coarseness Factor:	57	Workability Factor:	35	Adjusted WF 37.4



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-39**

Contractor:

Sample Date: 10/28/26

Concrete Grade: **DM-4500HP**

Dates Test Represents: 10/29/2026 through 11/4/2026

5" Slump

MDOT No.:

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1250	7.79	2.57	43.6
26A	71-47	Presque Isle	500	3.12	2.57	17.4
2NS	63-0009	Koenig	1120	6.77	2.65	39.0
		Total Wt	**2870**	**17.69**		100.0

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

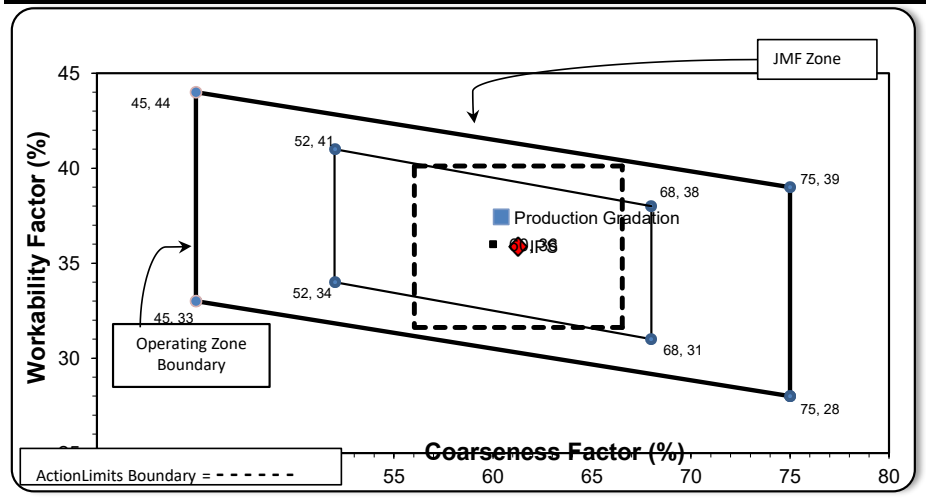
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Suite 500
Farmington Hills, MI 48336

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"	99.6	100.0	100.0	99.8	0.2	0.2
3/4"	85.8	100.0	100.0	93.8	6.0	6.2
1/2"	35.4	97.4	100.0	71.4	22.4	28.6
3/8"	16.4	83.4	100.0	60.7	10.7	39.3
#4	2.9	18.2	97.2	42.4	18.3	57.6
#8	2.0	5.6	84.8	34.9	7.4	65.1
#16	1.8	3.1	70.2	28.7	6.2	71.3
#30	1.7	2.3	51.2	21.1	7.6	78.9
#50	1.6	2.2	25.0	10.8	10.3	89.2
#100	1.6	1.9	5.3	3.1	7.7	96.9
LBW	1.2	1.7	0.3	0.9	2.2	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

Coarseness Factor:	60	Workability Factor:	35	Adjusted WF 37.4



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-102**

Contractor: _____

Sample Date: 10/28/26

Concrete Grade: **DM-4500HP**

Dates Test Represents: 10/29/2026 through 11/4/2026

5" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	StoneCo	1300	7.74	2.69	44.1
IA	58-003	StoneCo	450	2.68	2.69	15.3
2NS	63-114	Highland	1200	7.23	2.66	40.7
		Total Wt	**2950**	**17.66**		100.0

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

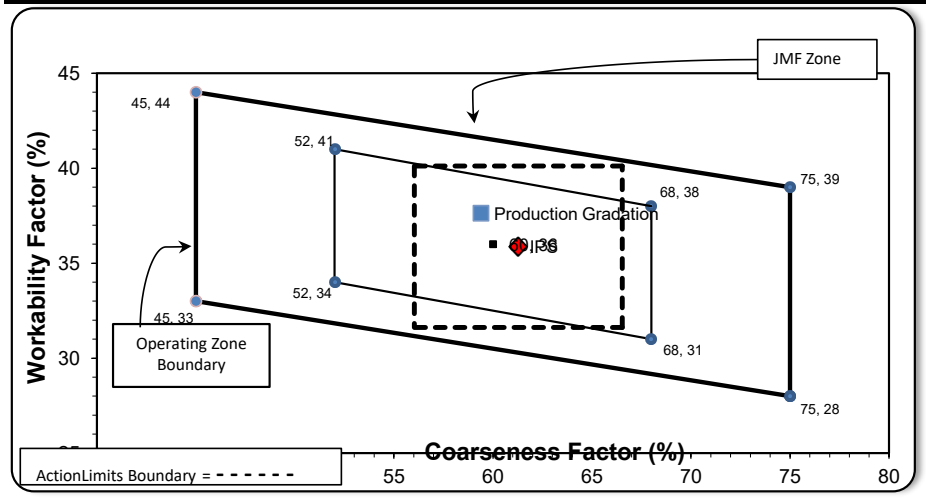
Sieve	6AA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	82.3	100.0	100.0	92.2	7.8	7.8
1/2"	41.0	87.8	100.0	72.1	20.1	27.9
3/8"	23.1	69.6	100.0	61.5	10.7	38.5
#4	3.9	15.8	98.3	44.1	17.4	55.9
#8	1.7	3.0	83.4	35.1	9.0	64.9
#16	1.4	2.1	65.0	27.4	7.8	72.6
#30	1.2	1.9	45.0	19.1	8.3	80.9
#50	1.1	1.7	22.0	9.7	9.4	90.3
#100	1.0	1.6	4.0	2.3	7.4	97.7
LBW	1.0	1.5	0.5	0.9	1.4	99.1

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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:	59	Workability Factor:	35	Adjusted WF 37.6



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-103**

Contractor: _____

Sample Date: 10/28/26

Concrete Grade: **DM-4500HP**

Dates Test Represents: 10/29/2026 through 11/4/2026

5" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	StoneCo	1300	7.74	2.69	44.1
IA	58-003	StoneCo	450	2.68	2.69	15.3
2NS	63-114	Highland	1200	7.23	2.66	40.7
		Total Wt	**2950**	**17.66**		100.0

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

Sieve	6AA	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"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	82.3	100.0	100.0	92.2	7.8	7.8
1/2"	41.0	87.8	100.0	72.1	20.1	27.9
3/8"	23.1	69.6	100.0	61.5	10.7	38.5
#4	3.9	15.8	98.3	44.1	17.4	55.9
#8	1.7	3.0	83.4	35.1	9.0	64.9
#16	1.4	2.1	65.0	27.4	7.8	72.6
#30	1.2	1.9	45.0	19.1	8.3	80.9
#50	1.1	1.7	22.0	9.7	9.4	90.3
#100	1.0	1.6	4.0	2.3	7.4	97.7
LBW	1.0	1.5	0.5	0.9	1.4	99.1

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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.

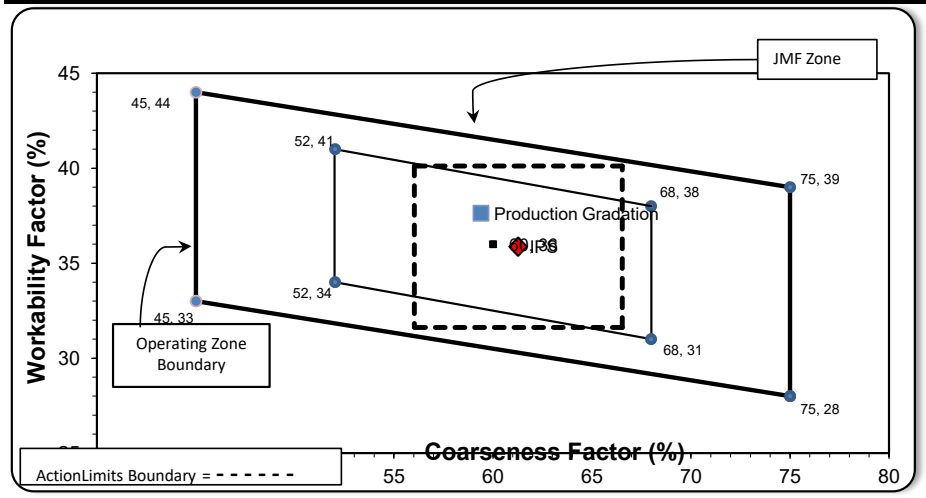
Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

Coarseness Factor:	59	Workability Factor:	35	Adjusted WF 37.6

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