

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **p11**

Sample Date: 8/18/25

Concrete Grade: **S2M, 3500HP**

Dates Test Represents: 8/19/2025 through 8/25/2025

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"	97.4	100.0	100.0	98.8	1.2	1.2
3/4"	74.6	100.0	100.0	88.2	10.6	11.8
1/2"	27.5	98.9	100.0	66.1	22.1	33.9
3/8"	11.3	84.0	100.0	56.6	9.5	43.4
#4	2.5	23.4	97.3	43.5	13.1	56.5
#8	1.7	7.2	82.4	35.0	8.5	65.0
#16	1.5	3.3	64.1	27.0	8.0	73.0
#30	1.4	2.6	47.2	20.0	7.0	80.0
#50	1.4	2.4	25.2	11.1	8.9	88.9
#100	1.3	2.3	6.7	3.6	7.5	96.4
LBW	1.1	2.0	1.1	1.2	2.4	98.8

*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

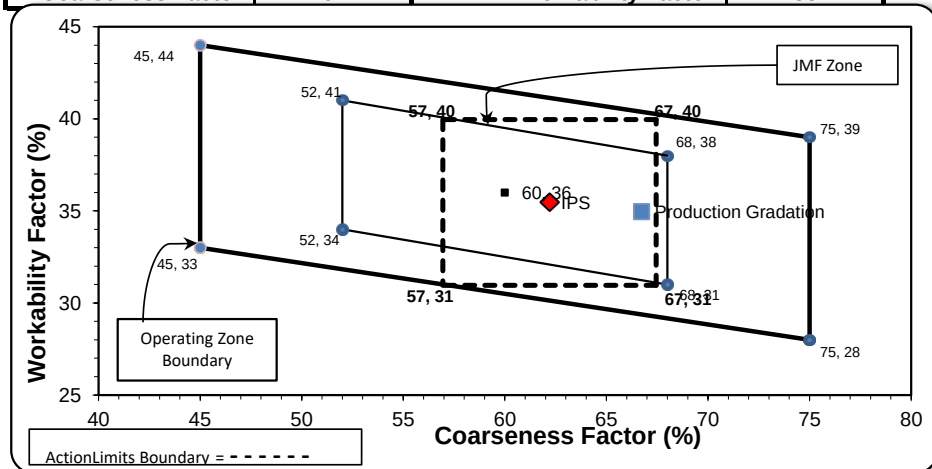
30701 W. 10 Mile Rd.

Suite 500

Farmington Hills, MI 48336

Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Coarseness Factor:	67	Workability Factor:	35
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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:

[Signature]

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-O2**

Sample Date: 8/18/25

Concrete Grade: **S2M, 3500HP**

Dates Test Represents: 8/19/2025 through 8/25/2025

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"	97.4	100.0	100.0	98.8	1.2	1.2
3/4"	74.6	100.0	100.0	88.2	10.6	11.8
1/2"	27.5	98.9	100.0	66.1	22.1	33.9
3/8"	11.3	84.0	100.0	56.6	9.5	43.4
#4	2.5	23.4	97.3	43.5	13.1	56.5
#8	1.7	7.2	82.4	35.0	8.5	65.0
#16	1.5	3.3	64.1	27.0	8.0	73.0
#30	1.4	2.6	47.2	20.0	7.0	80.0
#50	1.4	2.4	25.2	11.1	8.9	88.9
#100	1.3	2.3	6.7	3.6	7.5	96.4
LBW	1.1	2.0	1.1	1.2	2.4	98.8

*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

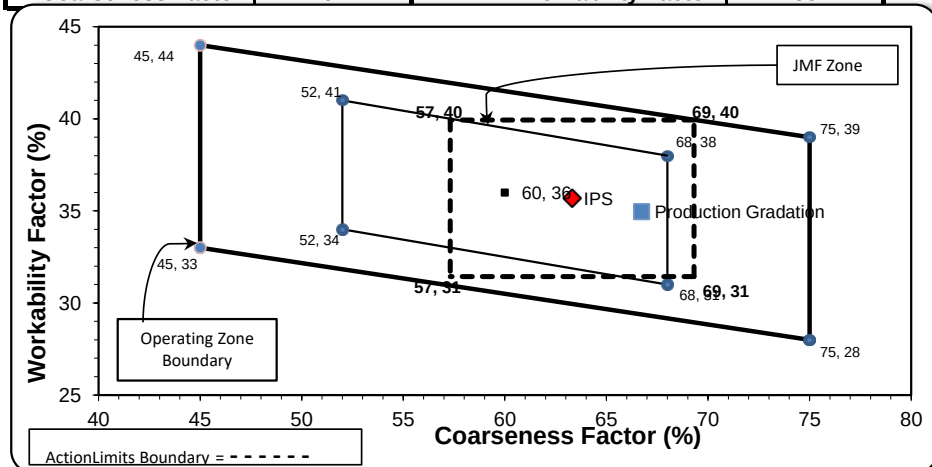
30701 W. 10 Mile Rd.

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Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Coarseness Factor: **67** **Workability Factor:** **35**



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"	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]