

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-36**

Sample Date: 10/21/26

Concrete Grade: **S2M-3500HP**

Dates Test Represents: 10/22/2026 through 10/28/2026

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1440	8.98	2.57	46.8
26A	71-47	Presque Isle	420	2.62	2.57	13.6
2NS	63-115	Ray Rd	1220	7.32	2.67	39.6
Total Wt			3080	18.92		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"	89.7	100.0	100.0	95.2	4.8	4.8
1/2"	43.2	99.1	100.0	73.3	21.9	26.7
3/8"	18.7	88.2	100.0	60.4	12.9	39.6
#4	3.1	19.0	96.9	42.4	18.0	57.6
#8	2.0	5.2	81.0	33.7	8.7	66.3
#16	1.7	2.7	64.5	26.7	7.0	73.3
#30	1.5	2.3	48.3	20.1	6.6	79.9
#50	1.4	2.1	25.3	11.0	9.2	89.0
#100	1.2	2.0	6.0	3.2	7.8	96.8
LBW	1.0	1.6	0.9	1.0	2.2	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.

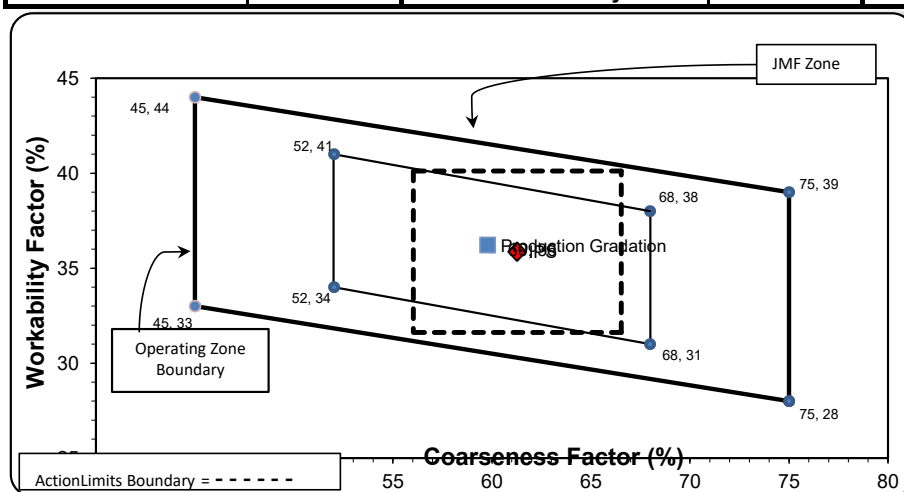
Production Gradation ☒ Batch Plant Gradations ☐ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	60	Workability Factor:	34	36.2
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Coarseness Factor:	61
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Workability Factor:	36
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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: 10/21/2026

Concrete Grade: **S2M-3500HP**

Dates Test Represents: 10/22/2026 through 10/28/2026

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1360	8.48	2.57	44.4
26A	71-47	Presque Isle	500	3.12	2.57	16.3
2NS	63-0009	Koenig	1200	7.26	2.65	39.2
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"	98.8	100.0	100.0	99.5	0.5	0.5
3/4"	81.6	100.0	100.0	91.8	7.6	8.2
1/2"	32.9	96.3	100.0	69.6	22.2	30.4
3/8"	17.0	82.1	100.0	60.2	9.4	39.8
#4	2.2	26.2	97.4	43.5	16.7	56.5
#8	1.6	9.3	84.0	35.2	8.3	64.8
#16	1.5	4.8	69.4	28.7	6.5	71.3
#30	1.3	3.5	52.7	21.8	6.9	78.2
#50	1.2	3.2	25.3	11.0	10.8	89.0
#100	1.0	2.8	4.5	2.7	8.3	97.3
LBW	0.9	2.5	0.9	1.2	1.5	98.8



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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

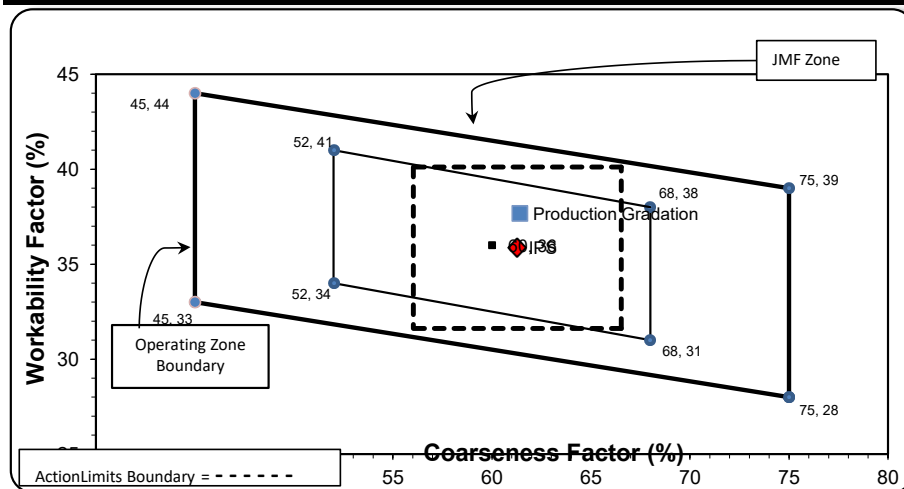
a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation ☒ Batch Plant Gradations ☐ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	61	Workability Factor:	35	37.7
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Coarseness Factor:		61	
Workability Factor:		36	
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
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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
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#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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