Aggregate Optimization Chart

Production Gradation Nancy Donahue

PLANT #: **P39**

Contractor: _____

Sample Date: 2/27/26

Concrete Grade: **P1M 3500HP**

Dates Test Represents: 2/28/2026 through 3/6/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	950	5.81	2.62	30.8
IA	71-47	Presque Isle	850	5.20	2.62	27.6
2NS	63-0009	Oxford	1280	7.74	2.65	41.6
		Total Wt	**3080**	**18.75**		100.0

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

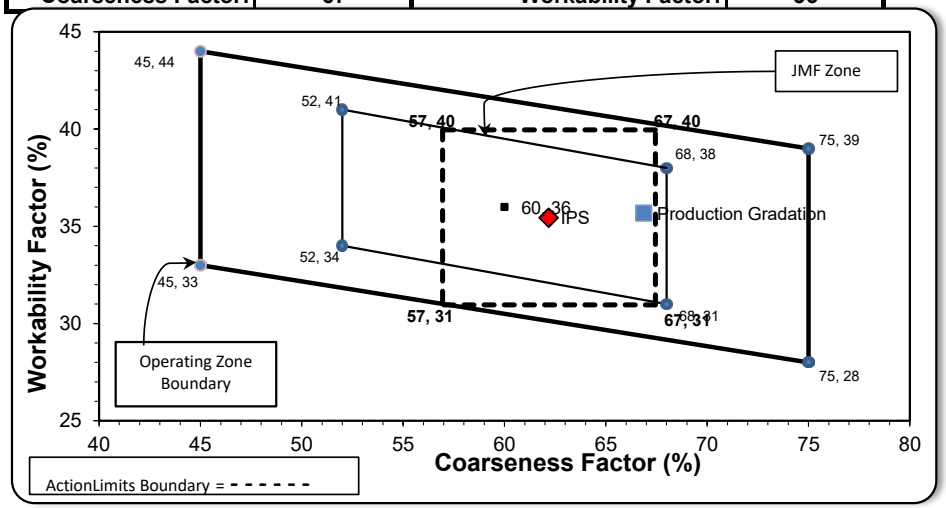
Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	96.8	100.0	100.0	99.0	1.0	1.0
1"	43.1	100.0	100.0	82.4	16.6	17.6
3/4"	14.4	100.0	100.0	73.6	8.9	26.4
1/2"	4.5	77.7	100.0	64.4	9.2	35.6
3/8"	3.4	52.1	100.0	57.0	7.4	43.0
#4	3.0	10.1	97.5	44.2	12.8	55.8
#8	2.8	3.7	81.3	35.7	8.6	64.3
#16	2.6	2.8	69.3	30.4	5.3	69.6
#30	2.4	2.5	49.8	22.1	8.2	77.9
#50	2.1	2.4	25.5	11.9	10.2	88.1
#100	1.9	2.2	6.8	4.0	7.9	96.0
LBW	1.5	2.0	0.8	1.3	2.7	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

Coarseness Factor:	67	Workability Factor:	36



Intial 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:
Nancy Donahue

Aggregate Optimization Chart

Production Gradation Nancy Donahue

PLANT #: **P101**

Contractor: _____

Sample Date: 2/27/26

Concrete Grade: **P1M 3500HP**

Dates Test Represents: 2/28/2026 through 3/6/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	950	5.81	2.62	30.8
IA	71-47	Presque Isle	850	5.20	2.62	27.6
2NS	75-051	Mid Michigan	1280	7.71	2.66	41.6
		Total Wt	**3080**	**18.72**		100.0

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

Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	96.8	100.0	100.0	99.0	1.0	1.0
1"	43.1	100.0	100.0	82.4	16.6	17.6
3/4"	14.4	100.0	100.0	73.6	8.9	26.4
1/2"	4.5	77.7	100.0	64.4	9.2	35.6
3/8"	3.4	52.1	100.0	57.0	7.4	43.0
#4	3.0	10.1	96.5	43.8	13.2	56.2
#8	2.8	3.7	81.1	35.6	8.2	64.4
#16	2.6	2.8	67.7	29.7	5.9	70.3
#30	2.4	2.5	54.0	23.9	5.8	76.1
#50	2.1	2.4	27.7	12.8	11.1	87.2
#100	1.9	2.2	7.7	4.4	8.4	95.6
LBW	1.5	2.0	0.9	1.4	3.0	98.6

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Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

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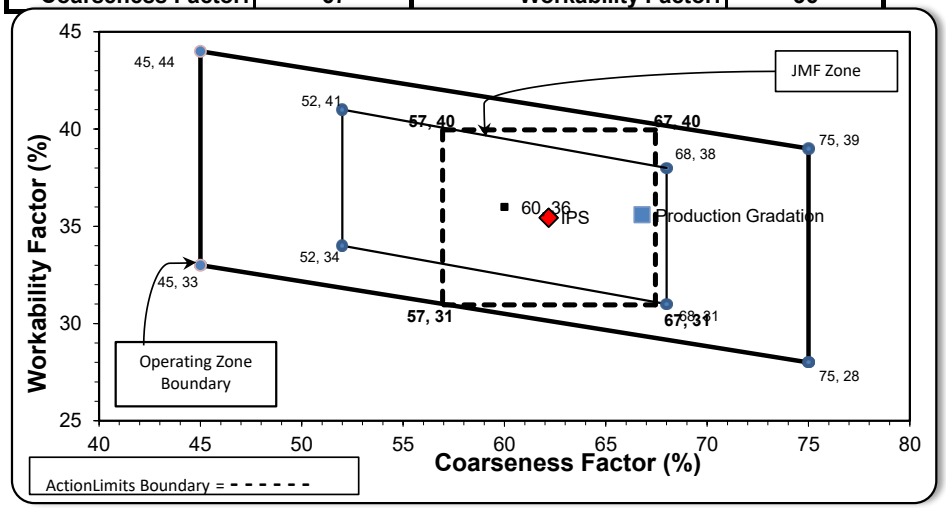

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#100	3.1	5.9	96.9
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