

# Aggregate Optimization Chart

## Production Gradation Report

**PLANT #:** **P11**

Sample Date: 7/7/25

Dates Test Represents: 7/8/2025 through 7/14/2025

Concrete Grade: **P1M, 3500HP, 4000HP**

Contractor: \_\_\_\_\_

MDOT No.: \_\_\_\_\_

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	970	5.93	2.62	31.6
IA	71-47	Presque Isle	900	5.50	2.62	29.3
2NS	63-115	Ray Rd	1200	7.26	2.65	39.1
<b>Total Wt</b>			<b>3070</b>	<b>18.70</b>		<b>100.0</b>

<----- 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"	96.3	100.0	100.0	98.8	1.2	1.2
1"	30.7	100.0	100.0	78.1	20.7	21.9
3/4"	6.2	98.4	100.0	69.9	8.2	30.1
1/2"	2.4	77.3	100.0	62.5	7.4	37.5
3/8"	1.7	48.2	100.0	53.8	8.8	46.2
#4	1.6	5.8	97.1	40.2	13.6	59.8
#8	1.6	2.1	81.1	32.8	7.3	67.2
#16	1.5	1.3	63.0	25.5	7.3	74.5
#30	1.4	1.2	46.0	18.8	6.7	81.2
#50	1.3	1.1	23.9	10.1	8.7	89.9
#100	1.3	1.1	5.5	2.9	7.2	97.1
LBW	1.1	1.0	0.7	0.9	2.0	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 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



**Superior Materials, LLC**

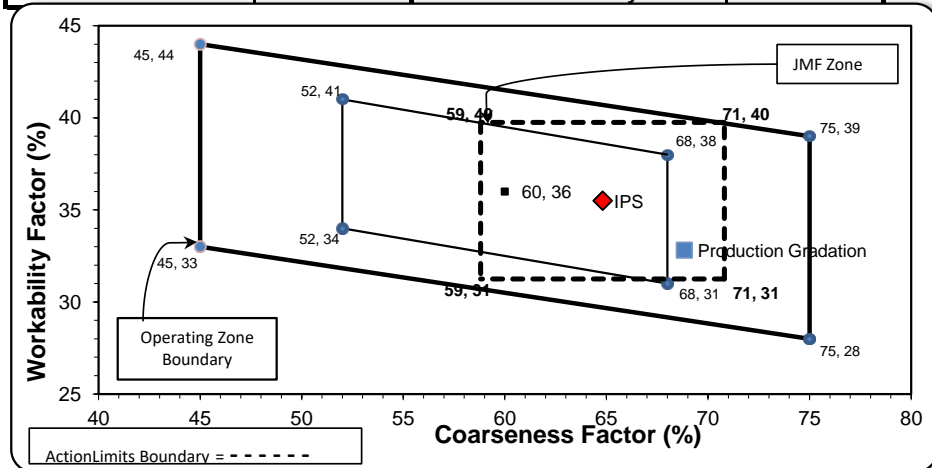
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Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

**Coarseness Factor:** **69** **Workability Factor:** **33**



Initial Production Sample (IPS)

Coarseness Factor:		65	
Workability Factor:		36	
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	99.0	0.6	0.6
1"	84.0	15.3	16.0
3/4"	73.5	10.5	26.5
1/2"	65.2	8.2	34.8
3/8"	58.2	7.1	41.8
#4	44.1	14.1	55.9
#8	35.5	8.6	64.5
#16	29.1	6.4	70.9
#30	21.9	7.3	78.1
#50	9.6	12.2	90.4
#100	2.6	7.1	97.4
LBW	1.0	1.6	99.0

PREPARED BY:  
SM, LLC Technical Service

Approved By: