

# Aggregate Optimization Chart

# Production Gradation Report

PLANT #: **P11**

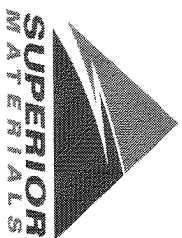
Sample Date: **11/11/24**

Dates Test Represents: **11/12/2024** through **11/18/2024**

Concrete Grade: **P1M, 3500HP**

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

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



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

Aggr. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	Cumulative % Contribution
CA	71-47	Presque Isle	870	5.32	2.62	28.3
IA	71-47	Presque Isle	1000	6.12	2.62	32.6
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>

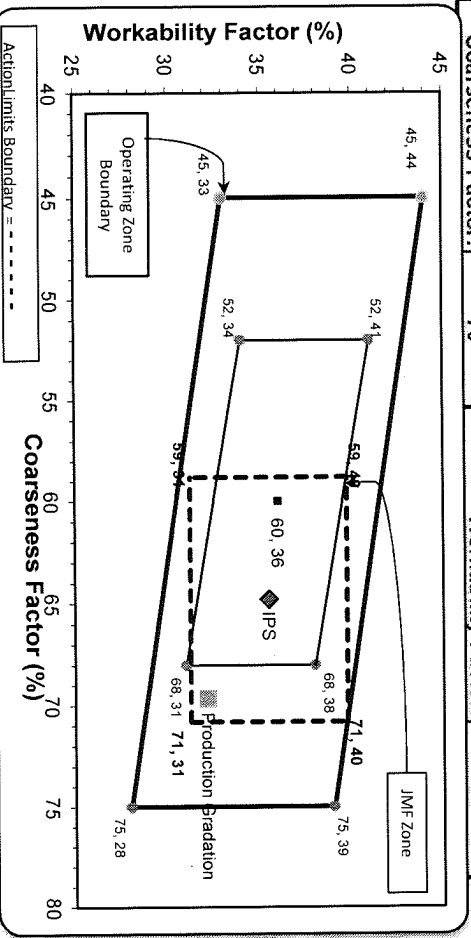
  

Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	96.2	100.0	100.0	98.9	1.1	1.1
1"	38.1	100.0	100.0	82.5	16.5	17.5
3/4"	8.5	98.2	100.0	73.5	9.0	26.5
1/2"	2.5	70.7	100.0	62.8	10.7	37.2
3/8"	1.9	40.3	100.0	52.8	10.1	47.2
#4	1.7	6.5	95.3	39.8	12.9	60.2
#8	1.6	2.7	78.9	32.2	7.7	67.8
#16	1.5	2.3	64.1	26.2	5.9	73.8
#30	1.5	2.2	49.2	20.4	5.9	79.6
#50	1.4	2.0	25.4	11.0	9.4	89.0
#100	1.3	2.0	6.5	3.6	7.4	96.4
LBW	1.1	1.7	0.9	1.2	2.3	98.8

Production Gradation

Batch Plant Gradations  Aggregate Supplier Gradations

Coarseness Factor: **70** Workability Factor: **32**



Initial Production Sample (IPS)

Sieve	Coarseness Factor:	Workability Factor:	Cumulative % Passing	% Retained	Cumulative % Retained
2"	<b>65</b>	<b>36</b>	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

\*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.

PREPARED BY:  
SM, LLC Technical Service

Approved By: \_\_\_\_\_

