

# Aggregate Optimization Chart

## Production Gradation Report

**PLANT #:** P-02

**Sample Date:** 8/12/24

**Dates Test Represents:** 8/13/2024 through 8/19/2024

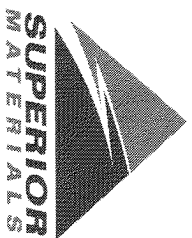
**Concrete Grade:** P1M, 3500HP

**Contractor:**

**MDOT No.:**

Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1020	6.24	2.62	33.2
IA	71-47	Presque Isle	850	5.20	2.62	27.7
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"	91.1	100.0	100.0	97.0	3.0	3.0
1"	21.4	100.0	100.0	73.9	23.2	26.1
3/4"	6.4	98.2	100.0	68.4	5.5	31.6
1/2"	3.2	76.9	100.0	61.4	7.0	38.6
3/8"	2.8	55.3	100.0	55.3	6.1	44.7
#4	2.6	13.8	95.7	42.1	13.2	57.9
#8	2.3	5.2	79.7	33.4	8.7	66.6
#16	2.1	3.5	65.6	27.3	6.0	72.7
#30	1.9	3.1	50.1	21.1	6.2	78.9
#50	1.7	2.9	25.6	11.4	9.7	88.6
#100	1.5	2.8	6.0	3.6	7.8	96.4
LBW	1.3	2.4	0.7	1.4	2.2	98.6

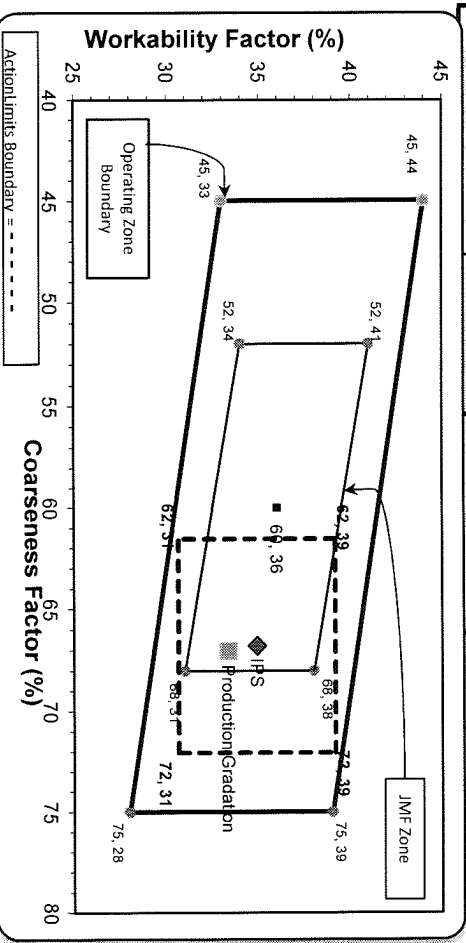


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\*Maximum % Retained must be above the 3/8" sieve.  
 \*\*Any two adjacent sieves must equal 10% except max.  
 nom. max. #100 and #200 sieves.  
 \*\*\*Retained must be at least 4% for each sieve except max.  
 nom. max. #100 and #200 sieves.  
 \*\*\*\*Retained must be at least 8% for the 1" sieve when a 2" max. size (nom. Max. 1.5") aggregate is used.

**Production Gradation**  Batch Plant Gradations  Aggregate Supplier Gradations

**Coarseness Factor:** 67 **Workability Factor:** 33

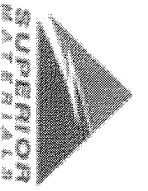


**Initial Production Sample (IPS)**

Sieve	Coarseness Factor:	Workability Factor:	Cumulative % Passing	% Retained	Cumulative % Retained
2"	67	35	100.0	0.0	0.0
1.5"			100.0	0.0	0.0
1"			85.0	15.0	15.0
3/4"			72.3	12.7	27.7
1/2"			64.5	7.8	35.5
3/8"			56.5	8.0	43.5
#4			42.7	13.8	57.3
#8			34.9	7.8	65.1
#16			29.0	5.9	71.0
#30			21.0	8.0	79.0
#50			8.2	12.8	91.8
#100			1.6	6.5	98.4
LBW			0.7	0.9	99.3

PREPARED BY:  
 SM, LLC Technical Service

Approved By:



# Daily Summary Report

Date Saturday, August 17, 2024

Sample Id	Plant	Product	Specification	Sample Type	Time
-1376933726	S02	7919 COARSE AGG P1M LS	Coarse Agg P1M LS Target	QA	15:11
-1989643322	S02	7920 INTERMED AGG P1M LS	Intermed Agg P1M LS Target	QA	15:12
-674987963	S02	1022 2NS GR	2NS GR Spec	QA	15:13
2" (50mm)					100.0
1 1/2" (37.5mm)					91.1
1" (25mm)					21.4
3/4" (19mm)					6.4
1/2" (12.5mm)					3.2
3/8" (9.5mm)					2.8
#4 (4.75mm)					2.6
#8 (2.36mm)					2.3
#16 (1.18mm)					2.1
#30 (.6mm)					1.9
#50 (.3mm)					1.7
#100 (.15mm)					1.5
#200 (75µm)					1.3
Pan					0.0
FM					0.0
Wash Loss (#200/75µm)					1.3
Total Moisture					1.27
					100.0
					100.0
					100.0
					98.2
					76.9
					55.3
					13.8
					5.2
					3.5
					3.1
					50.1
					25.6
					6.0
					0.8
					0.0
					2.77
					0.7
					3.66