

Aggregate Optimization Chart

PLANT #: **P-32**

Sample Date: 2/20/23

Concrete Grade: **DM, 4500HP**

Dates Test Represents: 2/21/2023 through 2/27/2023

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1405	8.59	2.62	48.4
26A	71-47	Presque Isle	350	2.14	2.62	12.0
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6
Total Wt			2905	17.69		100.0

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



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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"	99.3	100.0	100.0	99.7	0.3	0.3
3/4"	79.2	100.0	100.0	89.9	9.7	10.1
1/2"	32.6	96.8	100.0	67.0	22.9	33.0
3/8"	17.0	88.1	100.0	58.4	8.6	41.6
#4	3.9	26.4	95.6	42.9	15.5	57.1
#8	2.7	7.1	82.7	34.9	8.0	65.1
#16	2.4	3.2	67.9	28.4	6.5	71.6
#30	2.3	2.5	49.5	21.0	7.4	79.0
#50	2.2	2.4	24.1	10.9	10.1	89.1
#100	2.0	2.3	7.0	4.0	6.9	96.0
LBW	1.6	2.1	1.2	1.5	2.5	98.5

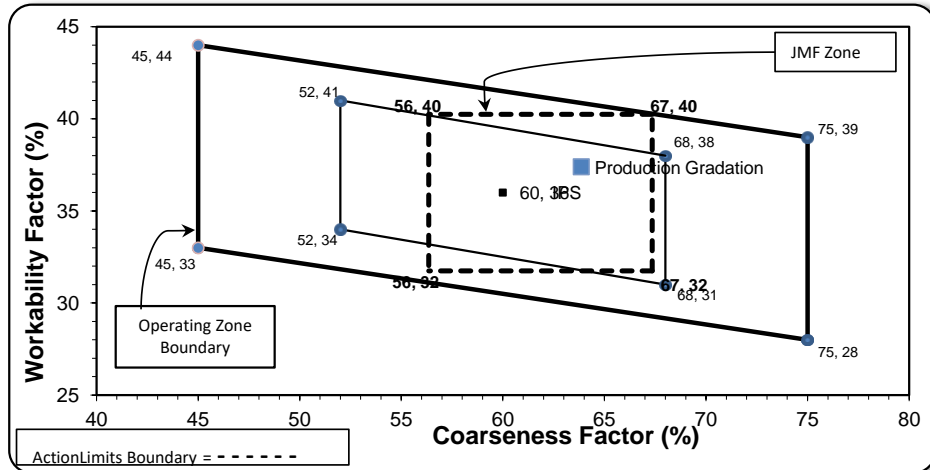
*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 8% for the 1" sieve when a 2" max. size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

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	64	Workability Factor:	35	37.4
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Coarseness Factor:	62
Workability Factor:	36



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"	95.0	5.0	5.0
1/2"	72.3	22.8	27.7
3/8"	60.4	11.8	39.6
#4	42.6	17.8	57.4
#8	36.0	6.6	64.0
#16	29.5	6.5	70.5
#30	20.3	9.2	79.7
#50	9.5	10.8	90.5
#100	3.4	6.1	96.6
LBW	1.3	2.1	98.7

PREPARED BY:
 SM, LLC Technical Service

Approved By: