

Aggregate Optimization Chart

PLANT #: **P-32**

Sample Date: 2/6/23

Concrete Grade: **DM, 4500HP**

Contractor: _____

Dates Test Represents: 2/7/2023 through 2/13/2023

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"	97.1	100.0	100.0	98.6	1.4	1.4
3/4"	74.0	100.0	100.0	87.4	11.2	12.6
1/2"	32.8	98.2	100.0	67.3	20.1	32.7
3/8"	15.2	87.3	100.0	57.5	9.8	42.5
#4	2.6	16.3	96.1	41.3	16.2	58.7
#8	1.9	3.8	83.4	34.4	6.9	65.6
#16	1.7	1.9	68.1	28.0	6.4	72.0
#30	1.6	1.7	49.4	20.5	7.5	79.5
#50	1.5	1.6	24.2	10.5	10.0	89.5
#100	1.4	1.5	6.5	3.4	7.1	96.6
LBW	1.1	1.4	1.1	1.1	2.3	98.9

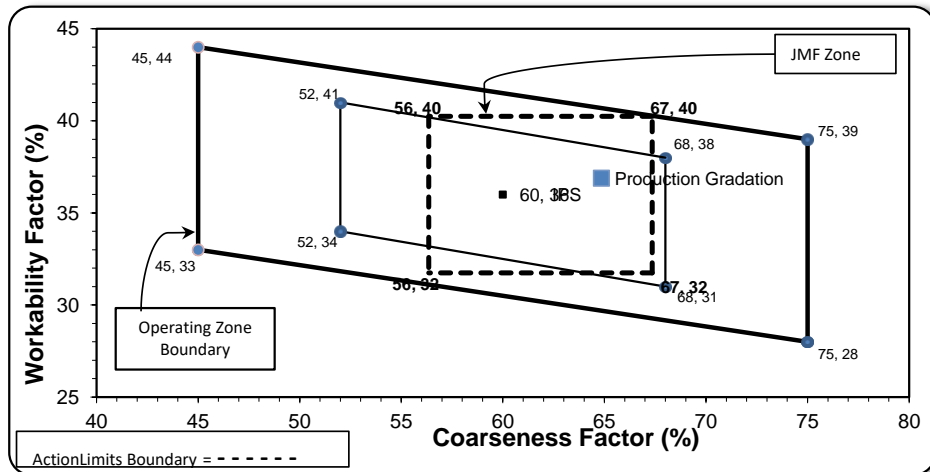
*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 8% for the 1" sieve when a 2" max. size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

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	65	Workability Factor:	34	36.9
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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: