

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-39**

Contractor: _____

Sample Date: **5/4/20**

Concrete Grade: **DM**

Dates Test Represents: **5/5/2020** through **5/11/2020**

MDOT No.: _____

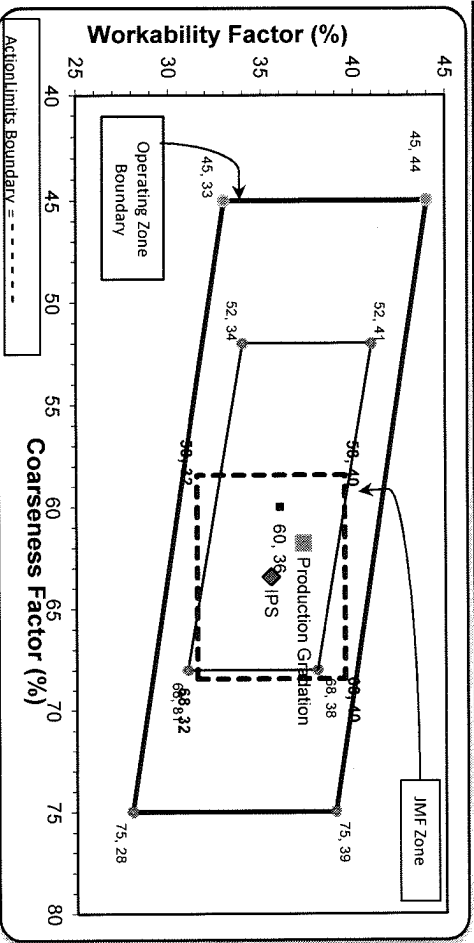
Aggr. Class	Pit #	Source	Weight (ssd)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1605	9.82	2.62	55.2
26A	71-47	Presque Isle	200	1.22	2.62	6.9
2NS	63-92	Grange Hall	1100	6.65	2.65	37.9
Total Wt			2905	17.69		100.0

Verify this number is 100%

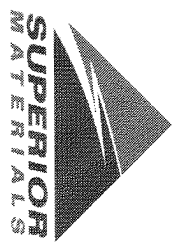
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	98.3	100.0	100.0	99.1	0.9	0.9
3/4"	86.2	100.0	100.0	92.4	6.7	7.6
1/2"	46.6	97.1	100.0	70.3	22.1	29.7
3/8"	28.6	87.7	100.0	59.7	10.6	40.3
#4	7.6	25.0	97.8	43.0	16.8	57.0
#8	3.6	7.1	85.3	34.8	8.2	65.2
#16	3.0	3.5	70.3	28.5	6.3	71.5
#30	2.7	2.9	51.9	21.3	7.2	78.7
#50	2.6	2.7	22.9	10.3	11.1	89.7
#100	2.4	2.5	3.2	2.7	7.6	97.3
LBW	1.9	2.2	0.7	1.5	1.2	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)
<input checked="" type="radio"/> Coarseness Factor: 62	<input type="radio"/> Workability Factor: 35	<input type="radio"/> Workability Factor: 35	<input type="radio"/> Workability Factor: 37.3	<input type="radio"/> Coarseness Factor: 63



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"	89.7	10.3	10.3
1/2"	70.3	19.4	29.7
3/8"	59.1	11.2	40.9
#4	42.8	16.3	57.2
#8	35.5	7.3	64.5
#16	29.0	6.5	71.0
#30	21.2	7.7	78.8
#50	9.8	11.5	90.2
#100	3.7	6.1	96.3
LBW	1.2	2.5	98.8



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PREPARED BY:
 SM, LLC Technical Service

Approved By: _____



Plant S39-Superior Sterling Heights

Product 1051-6AA LS

Name/Title Doug Storey / QC Technician

Period: 05/03/2020 - 05/09/2020

Report Date 05/08/2020

Procedure	Sieve/Test	Result	Unit	6AA LS
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	98.3	%	95-100
	3/4" (19mm)	86.2	%	
	1/2" (12.5mm)	46.6	%	30-60
	3/8" (9.5mm)	28.6	%	
	#4 (4.75mm)	7.6	%	0-8
	#8 (2.36mm)	3.6	%	
	#16 (1.18mm)	3.0	%	
	#30 (.6mm)	2.7	%	
	#50 (.3mm)	2.6	%	
	#100 (.15mm)	2.4	%	
	#200 (75µm)	2.08	%	
	Wash Loss (#200/75µm)	1.9	%	0-2
	Total Moisture	3.18	%	



Plant S39-Superior Sterling Heights

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 05/03/2020 - 05/09/2020

Report Date 05/08/2020

Procedure	Sieve/Test	Result	Unit	26A LS Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	
	1" (25mm)	100.0	%	
	3/4" (19mm)	100.0	%	100-100
	1/2" (12.5mm)	97.1	%	95-100
	3/8" (9.5mm)	87.7	%	60-95
	#4 (4.75mm)	25.0	%	5-30
	#8 (2.36mm)	7.1	%	0-12
	#16 (1.18mm)	3.5	%	
	#30 (.6mm)	2.9	%	
	#50 (.3mm)	2.7	%	
	#100 (.15mm)	2.5	%	
	#200 (75µm)	2.3	%	
	Wash Loss (#200/75um)	2.2	%	0-3
	Total Moisture	2.85	%	



Plant S39-Superior Sterling Heights

Product 1022-2NS GR

Period: 05/03/2020 - 05/09/2020

Name/Title Doug Storey / QC Technician

Report Date 05/08/2020

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	97.8	%	95-100
	#8 (2.36mm)	85.3	%	65-95
	#16 (1.18mm)	70.3	%	35-75
	#30 (.6mm)	51.9	%	20-55
	#50 (.3mm)	22.9	%	10-30
	#100 (.15mm)	3.2	%	0-10
	#200 (75µm)	0.9	%	
	FM	2.69		2.6-3
	Wash Loss (#200/75um)	0.7	%	0-3
	Total Moisture	3.07	%	