Aggregate Optimization Chart

PLANT #: Sample Date:		P-102	Concrete Grade: DM, 4500HP				Contractor:			-	
		3/11/24									
Dates Test F	Represents:	3/12/2024	through	3/18/2024			MDOT No.:			-	
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution					
6AA	58-003	Stoneco	1400	8.34	2.69	47.5					
26A	58-003	Stoneco	400	2.38	2.69 2.65	13.6					
2NS	63-114	63-114 Highland		1150 6.95 2050 17.68		39.0			SUPERIOR		
		Total Wt	2950	17.68		100.0	< Verify this n	umber is 100%	1	MATE	FRIALS
Sieve	6AA		26A		2NS	Cumulative % Passing	% Retained	% Retained Cumulative % Retained			<u>Materials, LLC</u> 10 Mile Rd.
2"	1	00.0	100.0		100.0	100.0	0.0	0.0	Suite 500		
1.5"		00.0	100.0		100.0	100.0	0.0	0.0	Farmington Hills, MI 48336		
1"	1	100.0		100.0		100.0	0.0	0.0	1		
3/4"		81.3		100.0		91.1	8.9	8.9			
1/2"		41.1	98	-	100.0	71.8	19.3	28.2	1		
3/8"		21.5	88.8		100.0	61.2	10.5	38.8	*Maximum % Retained must be above the 3/8" sieve.		
#4	4.8		22.4		98.9	43.9	17.4	56.1	*Any two adjacent sieves must equal 10% except max.,		
#8	2.6		4.3		83.4	34.3	9.5	65.7	nom. max., #100 and #200 sieves.		
#16	2.2		3.2		66.0	27.2	7.1	72.8	*% Retained must be at least 4% for each sieve except		
#30 #50	2.0 2.0		2.8 2.7		47.4 20.4	19.8 9.3	7.4 10.5	80.2 90.7	nom. max., #100 and #200 sieves. *% Retained must be at least 4% for the 3/4" sieve whe		
#30 #100	2.0		2.7		3.5	9.3 2.6	6.6	90.7 97.4	"% Retained must be at least 4% for the 3/4" sieve whe a 1.5" max. size (nom. Max. 1.0") aggregate is used.		
LBW	1.9		2.7		0.5	1.3	1.4	98.7	a 1.5 max. size (nom. wax. 1.0") aggregate is used.		
Production G		Batch Plant Gra		regate Supplier Gra				on Sample (IPS	∎ 6)		
Coarseness Factor: 59			Work	ability Factor:	34	36.8	Coarseness Factor:		61	1	
45							Workability Factor:		36		
45					JMF Zone			Cumulative	%	Cumulative	
1	45, 44				JIVIF 2011e		Sieve	% Passing	Retained	% Retained	
40		52, 41 56	40	67 40			2"	100.0	0.0	0.0	
_ 40 -				68, 38	75, 39		1.5"	100.0	0.0	0.0	
S			i - - - - -				1"	99.3	0.7	0.7	
r (%)									10.1	10.0	
tor (%)				n Gradation			3/4"	89.2		10.8	
actor (%)				n Gradation			1/2"	70.7	18.5	29.3	
y Factor (%)	45.22	52, 34		n Gradation			1/2" 3/8"	70.7 60.7	18.5 10.0	29.3 39.3	
ility Factor (%)	45, 33	52, 34					1/2" 3/8" #4	70.7 60.7 44.4	18.5 10.0 16.3	29.3 39.3 55.6	
ability Factor (%)		56		n Gradation			1/2" 3/8" #4 #8	70.7 60.7 44.4 35.9	18.5 10.0 16.3 8.5	29.3 39.3 55.6 64.1	
orkability Factor (%)	Operating Zone	56	60 Production				1/2" 3/8" #4 #8 #16	70.7 60.7 44.4 35.9 27.3	18.5 10.0 16.3 8.5 8.6	29.3 39.3 55.6 64.1 72.7	
ility Fa		56	- Production 60185		75, 28		1/2" 3/8" #4 #8	70.7 60.7 44.4 35.9	18.5 10.0 16.3 8.5	29.3 39.3 55.6 64.1 72.7 80.9	
Workability Factor (%)	Operating Zone	56	32		75, 28	80	1/2" 3/8" #4 #8 #16 #30	70.7 60.7 44.4 35.9 27.3 19.1	18.5 10.0 16.3 8.5 8.6 8.2	29.3 39.3 55.6 64.1 72.7	

PREPARED BY: SM, LLC Technical Service

Approved By: