

Concrete Mixture Analysis Worksheet

Project Name: I-696 (I-275 to Lahser)
 Contractor Name: Daytona Redi Mix
 MDOT Project #: 63101-131589
 Maximum Aggregate Size (inches): 1.5

Representative Date: 06/26/24 through 07/02/24
 CT Project #: 230408
 Mix ID #: BW-008 (Handwork)

MATERIALS				
Type	Source	Class	Spec. Grav.	F/T Dialation
Coarse	Stoneco-Ottawa Lake (58-0003CA)	CA	2.69	0.010
Intermediate 1	Stoneco-Ottawa Lake (58-0003CA)	IA	2.68	0.010
			1.00	
Fine	Mid Michigan-Vella (81-0101SG)	Fine	2.64	
Cement	Ash Grove-Missisauga	Type IL	3.10	
GGBFS	Ash Grove-Detroit	Grade 100	2.91	
ADMIXTURES				
Type	Supplier	Dosage (oz/cwt)		
Mapair SA	MAPEI	3.5		
DynamonSX	MAPEI	5		

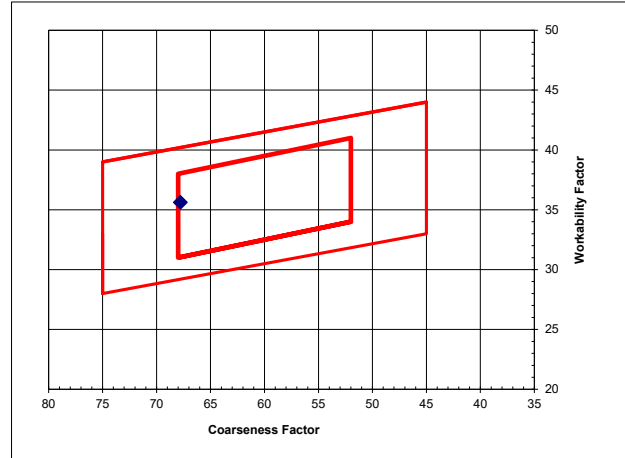
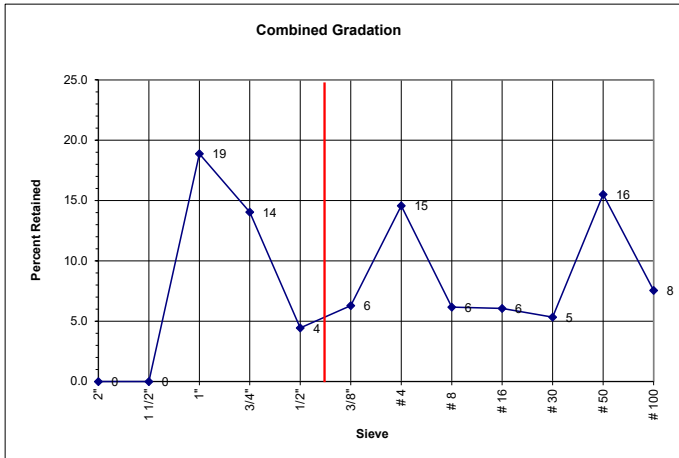
PROPORTIONS (SSD)				
Type	Wt. lbs.	Sp. Grav.	Vol. ft ³	% Vol.
Cement	458	3.1	2.37	
GGBFS	153	2.91	0.84	
Coarse	1320	2.69	7.86	43.88
Intermediate 1	490	2.68	2.93	16.35
		1.00	0.00	0.00
Fine	1174	2.64	7.13	39.77
Water	257	1	4.12	
Air, %	6.5		1.76	
				27.00
Total Cementitious:		611	lbs. or	6.5 bag
Water/Cement Ratio:		0.42		
Percent Cementitious Replacement:		25%		

SSD wt., lbs	GRADATIONS								Gradation Date: <u>6/25/2024</u>			
	Coarse		Intermediate 1		Fine		Fine		Total % Passing	% Cumm. Retained	Retained Sieve, %	Retained Spec. %
	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix				
	1320		490		0		1174					
Abs. Volume	7.86		2.93		0.00		7.13					
Aggregate % Vol.	43.9		16.4		0.0		39.8					
Sieves	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix				
2"	100.0	43.9	100.0	16.4	0.0	100.0	39.8	100.0	0.0	0.0		
1 1/2"	100.0	43.9	100.0	16.4	0.0	100.0	39.8	100.0	0.0	0.0		
1"	57.0	25.0	100.0	16.4	0.0	100.0	39.8	81.1	18.9	18.9		
3/4"	25.0	11.0	100.0	16.4	0.0	100.0	39.8	67.1	32.9	14.0		
1/2"	16.0	7.0	97.0	15.9	0.0	100.0	39.8	62.6	37.4	4.4		
3/8"	8.0	3.5	80.0	13.1	0.0	100.0	39.8	56.4	43.6	6.3		
# 4	2.0	0.9	24.0	3.9	0.0	93.0	37.0	41.8	58.2	14.6		
# 8	1.0	0.4	6.0	1.0	0.0	86.0	34.2	35.6	64.4	6.2		
# 16	1.0	0.4	3.0	0.5	0.0	72.0	28.6	29.6	70.4	6.1		
# 30	1.0	0.4	2.0	0.3	0.0	59.0	23.5	24.2	75.8	5.3		
# 50	1.0	0.4	2.0	0.3	0.0	20.0	8.0	8.7	91.3	15.5		
# 100	1.0	0.4	2.0	0.3	0.0	1.0	0.4	1.2	98.8	7.6		
# 200	1.0	0.4	2.0	0.3	0.0	1	0.4	1.2	98.8	0.0		

Fine Aggregate Fineness Modulus: 2.69 FM

Coarseness Factor (x-axis): 68
 ((cumm. Ret 3/8 / cumm. Ret #8) x 100)

Workability Factor (y-axis): 36
 (Pass #8 + Adjustment Factor)



Approved By: _____
 Signature: _____