

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: 07/02/24 through 07/09/24  
 CT Project #: 230408  
 Mix ID #: BW-007 (Slipform)

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
Mapetard R	MAPEI	3

PROPORTIONS (SSD)				
Type	Wt. lbs.	Sp. Grav.	Vol. ft <sup>3</sup>	% Vol.
Cement	458	3.1	2.37	
GGBFS	153	2.91	0.84	
Coarse	1340	2.69	7.98	43.81
Intermediate 1	500	2.68	2.99	16.41
		1.00	0.00	0.00
Fine	1194	2.64	7.25	39.78
Water	238	1	3.81	
Air, %	6.5		1.76	
			27.00	

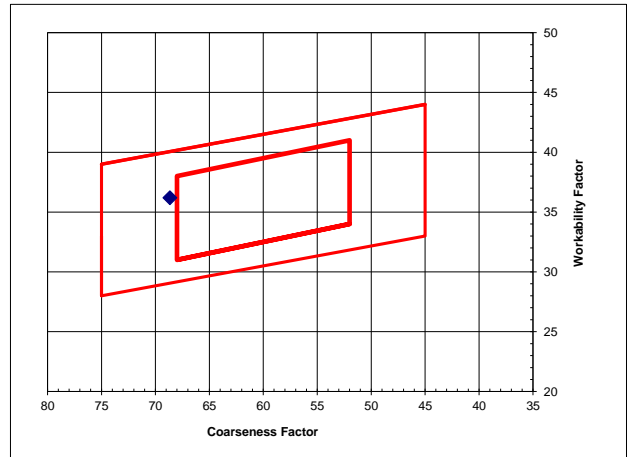
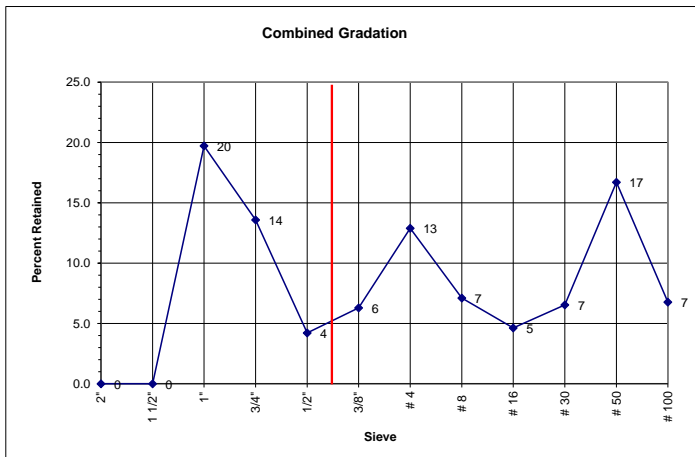
Total Cementitious:	611 lbs. or 6.5 bag
Water/Cement Ratio:	0.39
Percent Cementitious Replacement:	25%

	GRADATIONS								Gradation Date: <u>7/2/2024</u>			
	Coarse		Intermediate 1		Fine		Fine					
	SSD wt., lbs	1340	500	0	1194							
Abs. Volume	7.98	2.99	0.00	7.25								
Aggregate % Vol.	43.8	16.4	0.0	39.8								
Sieves	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix	Total % Passing	% Cumm. Retained	Retained Sieve, %	Retained Spec. %
2"	100.0	43.8	100.0	16.4	0.0	100.0	39.8	100.0	0.0	0.0		
1 1/2"	100.0	43.8	100.0	16.4	0.0	100.0	39.8	100.0	0.0	0.0		
1"	55.0	24.1	100.0	16.4	0.0	100.0	39.8	80.3	19.7	19.7		
3/4"	24.0	10.5	100.0	16.4	0.0	100.0	39.8	66.7	33.3	13.6		
1/2"	17.0	7.4	93.0	15.3	0.0	100.0	39.8	62.5	37.5	4.2		
3/8"	9.0	3.9	76.0	12.5	0.0	100.0	39.8	56.2	43.8	6.3		
# 4	2.0	0.9	21.0	3.4	0.0	98.0	39.0	43.3	56.7	12.9		
# 8	1.0	0.4	7.0	1.1	0.0	87.0	34.6	36.2	63.8	7.1		
# 16	1.0	0.4	3.0	0.5	0.0	77.0	30.6	31.6	68.4	4.6		
# 30	1.0	0.4	2.0	0.3	0.0	61.0	24.3	25.0	75.0	6.5		
# 50	1.0	0.4	2.0	0.3	0.0	19.0	7.6	8.3	91.7	16.7		
# 100	1.0	0.4	2.0	0.3	0.0	2.0	0.8	1.6	98.4	6.8		
# 200	1.2	0.5	1.8	0.3	0.0	1	0.4	1.3	98.7	0.3		

Fine Aggregate Fineness Modulus: 2.56 FM

Coarseness Factor (x-axis): 68.7  
((cumm. Ret 3/8 / cumm. Ret #8) x 100)

Workability Factor (y-axis): 36.2  
(Pass #8 + Adjustment Factor)



Approved By: James Plohg  
 Signature: James A. Plohg