

Project Names: I-96 (Kent Lake to I-275) /// I-696 (I-275 to Lahser)
 Contractor Name: Daytona Redi Mix
 MDOT Project #: 63022-124103 /// 63101-131589
 Maximum Aggregate Size (inches): 1.5

Representative Date: 09/03/24 through 09/10/24
 CT Project #: 230408
 Mix ID #: BW-009 (Slipform)

MATERIALS				
Type	Source	Class	Spec. Grav.	FT 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	Stoneco-Moscow (30-0071SG)	Fine	2.63	
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 ³	% Vol.
Cement	458	3.1	2.37	
GGBFS	153	2.91	0.84	
Coarse	1250	2.69	7.45	40.64
Intermediate 1	585	2.68	3.50	19.09
Fine	1211	2.63	7.38	40.27
Water	238	1	3.81	
Air, %	6.5		1.76	
				27.10

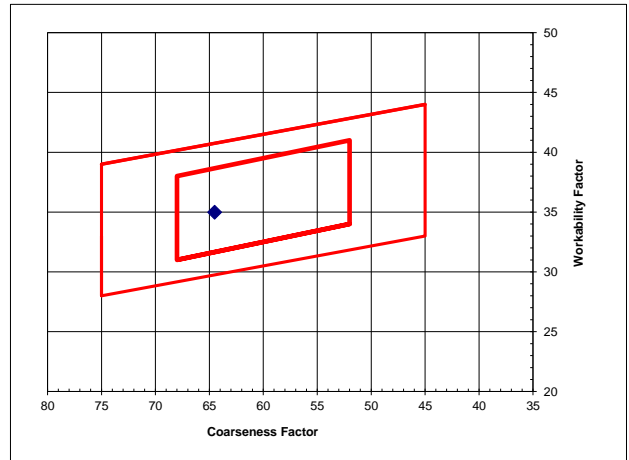
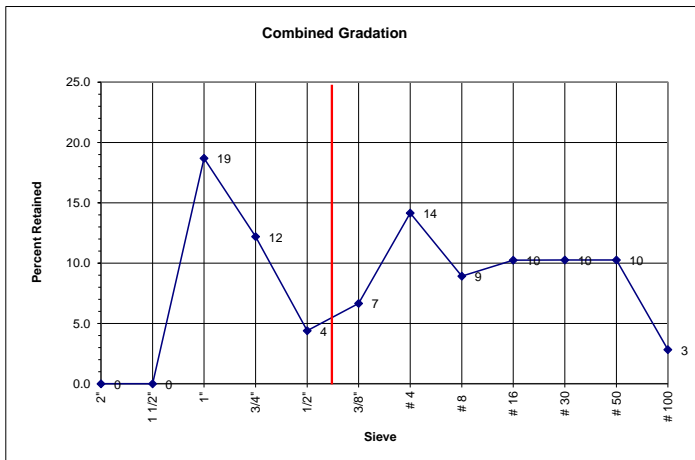
Total Cementitious:	611 lbs. or 6.5 bag
Water/Cement Ratio:	0.39
Percent Cementitious Replacement:	25%

	GRADATIONS								Gradation Date: <u>9/3/2024</u>			
	Coarse		Intermediate 1		Fine		Fine					
	SSD wt., lbs	1250	585	0	1211							
Abs. Volume	7.45	3.50	0.00	7.38								
Aggregate % Vol.	40.6	19.1	0.0	40.3								
Sieves	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix	Total % Passing	% Cumm. Retained	Retained Sieve, %	Retained Spec. %
2"	100.0	40.6	100.0	19.1	0.0	100.0	40.3	100.0	0.0	0.0	0.0	
1 1/2"	100.0	40.6	100.0	19.1	0.0	100.0	40.3	100.0	0.0	0.0	0.0	
1"	54.0	21.9	100.0	19.1	0.0	100.0	40.3	81.3	18.7	18.7		
3/4"	24.0	9.8	100.0	19.1	0.0	100.0	40.3	69.1	30.9	12.2		
1/2"	16.0	6.5	94.0	17.9	0.0	100.0	40.3	64.7	35.3	4.4		
3/8"	9.0	3.7	74.0	14.1	0.0	100.0	40.3	58.1	41.9	6.7		
# 4	2.0	0.8	19.0	3.6	0.0	98.0	39.5	43.9	56.1	14.1		
# 8	2.0	0.8	6.0	1.1	0.0	82.0	33.0	35.0	65.0	8.9		
# 16	2.0	0.8	3.0	0.6	0.0	58.0	23.4	24.7	75.3	10.2		
# 30	2.0	0.8	2.0	0.4	0.0	33.0	13.3	14.5	85.5	10.3		
# 50	2.0	0.8	1.0	0.2	0.0	8.0	3.2	4.2	95.8	10.3		
# 100	2.0	0.8	1.0	0.2	0.0	1.0	0.4	1.4	98.6	2.8		
# 200	1.5	0.6	1.1	0.2	0.0	0.8	0.3	1.1	98.9	0.3		

Fine Aggregate Fineness Modulus: 3.20 FM

Coarseness Factor (x-axis): 64.5
((cumm. Ret 3/8 / cumm. Ret #8) x 100)

Workability Factor (y-axis): 35.0
(Pass #8 + Adjustment Factor)



Approved By: James A. Plohg
 Signature: *James A. Plohg*