

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: 4/23/24 through 4/30/24
 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)		
Mapeair 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	1525	2.69	9.09	49.85
Intermediate 1	300	2.68	1.79	9.84
		1.00	0.00	0.00
Fine	1210	2.64	7.35	40.30
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>4/23/2024</u>			
	Coarse		Intermediate 1		Fine		Fine					
	SSD wt., lbs	1525	300	0	1210					Total % Passing	% Cumm. Retained	Retained Sieve, %
Abs. Volume	9.09	1.79	0.00	7.35								
Aggregate % Vol.	49.9	9.8	0.0	40.3								
Sieves	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix	Total % Passing	% Cumm. Retained	Retained Sieve, %	Retained Spec. %
2"	100.0	49.9	100.0	9.8	0.0	0.0	100.0	40.3	100.0	0.0	0.0	
1 1/2"	100.0	49.9	100.0	9.8	0.0	0.0	100.0	40.3	100.0	0.0	0.0	
1"	71.0	35.4	100.0	9.8	0.0	0.0	100.0	40.3	85.5	14.5	14.5	
3/4"	45.0	22.4	100.0	9.8	0.0	0.0	100.0	40.3	72.6	27.4	13.0	
1/2"	25.0	12.5	97.0	9.5	0.0	0.0	100.0	40.3	62.3	37.7	10.3	
3/8"	15.0	7.5	77.0	7.6	0.0	0.0	100.0	40.3	55.4	44.6	7.0	
# 4	3.0	1.5	12.0	1.2	0.0	0.0	97.0	39.1	41.8	58.2	13.6	
# 8	2.0	1.0	3.0	0.3	0.0	0.0	82.0	33.0	34.3	65.7	7.4	
# 16	1.0	0.5	2.0	0.2	0.0	0.0	67.0	27.0	27.7	72.3	6.6	
# 30	1.0	0.5	1.0	0.1	0.0	0.0	52.0	21.0	21.6	78.4	6.1	
# 50	1.0	0.5	1.0	0.1	0.0	0.0	18.0	7.3	7.9	92.1	13.7	
# 100	1.0	0.5	1.0	0.1	0.0	0.0	2.0	0.8	1.4	98.6	6.4	
# 200	1.2	0.6	1.1	0.1	0.0	0.0	1	0.2	0.9	99.1	0.5	

Fine Aggregate Fineness Modulus: 2.82 FM

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

Workability Factor (y-axis): 34
(Pass #8 + Adjustment Factor)

