



Concrete Cylinder Test Report

PROJECT INFO

ASTM C31, ASTM C39, AASHTO T23, AASHTO T22, ASTM C172, AASHTO R60

Client	HRC	Date Of Placement	09/23/2020
Project Name	HMA Resurfacing 20+ Locations	Specimen Type	Concrete Cylinder
Project Number	2019086C	Contractor	merlo
Project Location	Detroit, MI	Concrete Supplier	Superior Materials, LLC
MDOT Job Number	205935A, 207914A	Field Tested By	Cody Cervelli
MDOT Control Section	82000	Date Issued	10/21/2020
Results Recorded In	English Units		
Supplier Mix Description	Structure Adjustment		

DESIGN PARAMETER

Mix Design Number	0643 P155ERCNA002 (Plt. 2)				
Design Compressive Strength (psi)	3500				
Air (% Max)	8.5	Slump (in Max)	6.00	Unit Weight (lbs/ft ³)	
Air (% Min)	5.5	Slump (in Min)	3.50		

TESTING DATA

Placed 90.00 +/- yds ³ /ft ³ of concrete at the following location: Sidewalks & ADA Ramps on Bagley from 21st St. to Trumbull.									
Time Tested	Truck Num	Slump ASTM C143 (in)	Air ASTM C231 or C173 (%)	Unit Weight ASTM C138 (lbs/ft ³)	Air Temp (°F)	Mix Temp ASTM C1064 (°F)	Concrete Cylinder Set	Water Added (gal)	Cumulative Concrete Placed At Test (yds ³ /ft ³)
8:30 AM	1737	6.00	7.00	0.0	55	70	1	0	1

MATERIAL DATA

Concrete Cylinder Set	Concrete Cylinder Num	Diameter (in)	X-Sec Area (in ²)	Weight (lbs)	Fracture Type	Capping Process	Age Of Concrete Cylinder (Days)	Date Tested	Total Load At Failure (lbs)	Cumulative Strength (psi/mpa)
1	80398	4.00	12.57	8.36	2- (Cone/Vertical)	Unbonded Cap	28	10/21/2020	71900	5720
1	80399	4.00	12.57	8.35	2- (Cone/Vertical)	Unbonded Cap	28	10/21/2020	68660	5460

Average 28 Day Compressive Strength (psi): 5590

*Cylinders tested with Unbonded Caps followed ASTM C1231, cylinders tested with Bonded Caps followed ASTM C617.

*All Air Content % tests were performed per C231 unless otherwise noted in the remarks.

*Inspector was notified of non-conformance items, if any.

*Average Compressive Strength results did meet project specifications.

Remarks:	
Results Reported To:	HRC(Kevin Surhigh)
Report Approved By:	Matthew Johnson



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1:10 PM	1737	5.00	7.60	0.0	75	79	2	0	50

MATERIAL DATA

Concrete Cylinder Set	Concrete Cylinder Num	Diameter (in)	X-Sec Area (in ²)	Weight (lbs)	Fracture Type	Capping Process	Age Of Concrete Cylinder (Days)	Date Tested	Total Load At Failure (lbs)	Cumulative Strength (psi/mpa)
2	80400	4.00	12.57	8.22	2- (Cone/Vertical I)	Unbonded Cap	28	10/21/2020	64820	5160
2	80401	4.00	12.57	8.30	3-(Vertical)	Unbonded Cap	28	10/21/2020	65800	5230

Average 28 Day Compressive Strength (psi): 5195

*Cylinders tested with Unbonded Caps followed ASTM C1231, cylinders tested with Bonded Caps followed ASTM C617.

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