



CONCRETE QA CORRELATION

DATE: 7/10/2020

MDOT CONTROL SECTION: 82000

MDOT JOB NUMBER: 205935A, 207914A

SOMAT JOB NUMBER: 2019086C

PROJECT NAME: HMA Resurfacing (fed-aid)

CITY: Detroit, MI (Various Routes)

CLIENT: Hubbell, Roth, & Clark (HRC)

PROJECT ENGINEER: Kevin Surhigh (HRC)

INSPECTOR: Andrew Weber

CONTRACTOR: Merlo

QC COMPANY: CTI

QC TESTER: Mallory

CONCRETE INFORMATION

CONCRETE COMPANY: Superior Materials

TRUCK NUMBER: 1381

MIX DESIGN #: P155E7CQA032

PLANT LOCATION (CITY): Detroit

CONCRETE GRADE: P1

TOTAL QUANTITY (CYDS): 28

PWL/NON-PWL: Non-PWL

QUANTITY AT SAMPLE (CYDS): 12

POUR LOCATION (STATION, STRUCTURE, ETC...)

Curbs on Burt between Plymouth and EB I-96 Service Drive. Tested on corner of Burt and Glendale.

TEST RESULTS

	QC (CONTRACTOR)	QA (SOMAT)	TOLERANCE	MEETS TOLERANCE (Y/N)
SAMPLE TIME (Hrs/Min):	8:05AM			
AIR CONTENT (%):	6.60	6.60	+/- 0.8 PERCENT	YES
CONCRETE TEMP. (°F):	86	85	+/- 2.0 DEGREES	YES
AIR TEMP. (°F):	78	78		

REMARKS:

FIELD REPRESENTATIVE: Alexander Hinz

DATE: 7/10/2020

PROJECT MANAGER(s): Steve Drummond

DATE:

*All results noted in this report relate only to items inspected or tested by Somat Engineering, Inc. and/or Somat Engineering of Ohio, Inc. (Somat). This report shall not be reproduced, except in full, without the prior written approval of Somat.

**CONCRETE QA CORRELATIO**DATE: 7/10/2020MDOT CONTROL SECTION: 82000MDOT JOB NUMBER: 205935A, 207914ASOMAT JOB NUMBER: 2019086CPROJECT NAME: HMA Resurfacing (fed-aid)CITY: Detroit, MI (Various Routes)CLIENT: Hubbell, Roth, & Clark (HRC)PROJECT ENGINEER: Kevin Surhigh (HRC)INSPECTOR: Andrew WeberCONTRACTOR: MerloQC COMPANY: CTIQC TESTER: Mallory**CONCRETE INFORMATION**

CONCRETE COMPANY:	Superior Materials	TRUCK NUMBER:	4911
MIX DESIGN #:	P155ERCQA031	PLANT LOCATION (CITY):	Detroit
CONCRETE GRADE:	P1	TOTAL QUANTITY (CYDS):	21
PWL/NON-PWL:	Non-PWL	QUANTITY AT SAMPLE (CYDS):	4

POUR LOCATION (STATION, STRUCTURE, ETC...)

Sidewalks and ADA Ramps on Burt between Plymouth and EB I-96 Service Drive. Tested on corner of Burt and Davison.

TEST RESULTS

	QC (CONTRACTOR)	QA (SOMAT)	TOLERANCE	MEETS TOLERANCE (Y/N)
SAMPLE TIME (Hrs/Min):	10:50AM			
AIR CONTENT (%):	6.20	6.40	+/- 0.8 PERCENT	YES
CONCRETE TEMP. (°F):	83	83	+/- 2.0 DEGREES	YES
AIR TEMP. (°F):	88	88		

REMARKS:

FIELD REPRESENTATIVE:	Alexander Hinz	DATE:	7/10/2020
PROJECT MANAGER(s):	Steve Drummond	DATE:	

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Concrete Cylinder Test Report

PROJECT INFO - DRAFT ONLY

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

Client	HRC	Date Of Placement	07/10/2020
Project Name	HMA Resurfacing 20+ Locations	Specimen Type	Concrete Cylinder
Project Number	2019086C	Contractor	merlo
Project Location	Detroit, MI	Concrete Supplier	Superior Materials
MDOT Job Number	205935A, 207914A	Field Tested By	Alex Hinz
MDOT Control Section	82000	Date Issued	07/10/2020
Results Recorded In	English Units		
Supplier Mix Description	Structure Adjustment		

DESIGN PARAMETER

Mix Design Number	0674 P155E7CQA032				
Design Compressive Strength (psi)	3500				
Air (% Max)	8.5	Slump (in Max)	3.00	Unit Weight (lbs/ft ³)	
Air (% Min)	5.5	Slump (in Min)	1.50		

TESTING DATA

Placed 28.00 +/- yds³/ft³ of concrete at the following location: Curbs on Burt between Plymouth and EB I-96 Service Drive. Tested on corner of Burt and Glendale.

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)
8:05 AM	1381	2.50	6.60	0.0	78	85	1	0	12

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	78705						28	08/07/2020		
1	78706						28	08/07/2020		

Average 28 Day Compressive Strength (psi): 0

*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 not meet project specifications.

Remarks:	
Results Reported To:	
Report Approved By:	Alex Hinz



Concrete Cylinder Test Report

PROJECT INFO - DRAFT ONLY

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

Client	HRC	Date Of Placement	07/10/2020
Project Name	HMA Resurfacing 20+ Locations	Specimen Type	Concrete Cylinder
Project Number	2019086C	Contractor	merlo
Project Location	Detroit, MI	Concrete Supplier	Superior Materials
MDOT Job Number	205935A, 207914A	Field Tested By	Alex Hinz
MDOT Control Section	82000	Date Issued	07/10/2020
Results Recorded In	English Units		
Supplier Mix Description	Structure Adjustment		

DESIGN PARAMETER

Mix Design Number	0675 P155ERCQA032				
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 21.00 +/- yds ³ /ft ³ of concrete at the following location: Sidewalks and ADA Ramps on Burt between Plymouth and EB I-96 Service Drive. Tested on corner of Burt and Davison.									
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)
10:50 AM	4911	5.00	6.40	0.0	88	83	1	0	4

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	78707						28	08/07/2020		
1	78708						28	08/07/2020		

Average 28 Day Compressive Strength (psi): 0

*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 not meet project specifications.

Remarks:	
Results Reported To:	
Report Approved By:	Alex Hinz