



CONCRETE QA CORRELATIO

DATE: 7/8/2020

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 (HRC)

CONTRACTOR: Merlo

QC COMPANY: CTI

QC TESTER: Mallory

CONCRETE INFORMATION

CONCRETE COMPANY:	Superior Materials	TRUCK NUMBER:	3201
MIX DESIGN #:	P155E7CQA032	PLANT LOCATION (CITY):	Detroit
CONCRETE GRADE:	P1	TOTAL QUANTITY (CYDS):	10
PWL/NON-PWL:	Non-PWL	QUANTITY AT SAMPLE (CYDS):	3

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

Curbs on M-10 SB Service Drive between Joy Rd. and Paul Ave. and . Tested on corner of SB M-10 Service Drive and Van Buren.

TEST RESULTS

	QC (CONTRACTOR)	QA (SOMAT)	TOLERANCE	MEETS TOLERANCE (Y/N)
SAMPLE TIME (Hrs/Min):	9:05AM			
AIR CONTENT (%):	5.70	6.10	+/- 0.8 PERCENT	YES
CONCRETE TEMP. (°F):	87	86	+/- 2.0 DEGREES	YES
AIR TEMP. (°F):	81	81		

REMARKS:

FIELD REPRESENTATIVE: Alexander Hinz

DATE: 7/8/2020

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.

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INSPECTOR: Andrew Weber (HRC)

CONTRACTOR: Merlo

QC COMPANY: CTI

QC TESTER: Mallory

CONCRETE INFORMATION

CONCRETE COMPANY:	Superior Materials	TRUCK NUMBER:	3207
MIX DESIGN #:	P155ERCQA032	PLANT LOCATION (CITY):	Detroit
CONCRETE GRADE:	P1	TOTAL QUANTITY (CYDS):	10
PWL/NON-PWL:	Non-PWL	QUANTITY AT SAMPLE (CYDS):	4

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

Sidewalks and ADA Ramps on M-10 SB Service Drive between Joy Rd. and Paul Ave. and . Tested on corner of SB M-10 Service Drive and Van Buren.

TEST RESULTS

	QC (CONTRACTOR)	QA (SOMAT)	TOLERANCE	MEETS TOLERANCE (Y/N)
SAMPLE TIME (Hrs/Min):	12:05PM			
AIR CONTENT (%):	5.70	5.70	+/- 0.8 PERCENT	YES
CONCRETE TEMP. (°F):	89	89	+/- 2.0 DEGREES	YES
AIR TEMP. (°F):	88	88		

REMARKS:

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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	07/08/2020
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	07/08/2020
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 10.00 +/- yds ³ /ft ³ of concrete at the following location: Curbs on M-10 SB Service Drive between Joy Rd. and Paul Ave. and . Tested on corner of SB M-10 Service Drive and Van Buren.									
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)
9:05 AM	3201	2.00	6.10	0.0	81	86	1	0	3

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	78681						28	08/05/2020		
1	78682						28	08/05/2020		

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	07/08/2020
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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	07/08/2020

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 10.00 +/- yds ³ /ft ³ of concrete at the following location: Sidewalks and ADA Ramps on M-10 SB Service Drive between Joy Rd. and Paul Ave. and . Tested on corner of SB M-10 Service Drive and Van Buren.									
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)
12:05 PM	3207	4.00	5.70	0.0	88	89	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	78683						28	08/05/2020		
1	78684						28	08/05/2020		

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