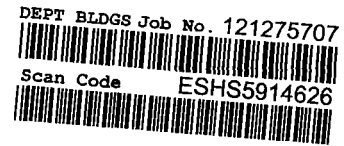




**TR3: Technical Report
Concrete Design Mix**
Must be typewritten.



The TR3 is required prior to permit

1 Location Information *Required for all applications.*

House No(s) **2461** Street Name **BROADWAY**
Borough **MANHATTAN** Block **1239** Lot **10** BIN **1033583** CB No. **107**

2 Applicant Information - Licensed Concrete Testing Lab *Required for all applications.*

Director Last Name **BANERJEE** Director First Name **DEBABRATA** Director Middle Initial
Business Name **IMPACT CONCRETE & CONTROL INSPECTION INC** Business Telephone **(718) 939-7774**
Business Address **15-46 129TH STREET** Business Fax **(718) 939-6444**
City **COLLEGE POIN** State **NEW YORK** Zip **11356** Mobile Telephone **(917) 577-7540**
E-Mail **DBANER@GMAIL.COM**
Director's Lic. Number **081431** ☒ P.E. ☐ R.A. Concrete Testing Lab Lic. Number **64**

3 Strength Requirements and Design *Required for all applications. Attach Trial Mixture Report and/or Field Experience Results.*

				Mix #1	Mix #2	Mix #3
Method of Determining Proportions (Trial Mixture and/or Field Experience)				<input checked="" type="checkbox"/> Trial Mix <input type="checkbox"/> Field Experience	<input type="checkbox"/> Trial Mix <input type="checkbox"/> Field Experience	<input type="checkbox"/> Trial Mix <input type="checkbox"/> Field Experience
Date Trial Mixture Performed				6-11-18	6-11-18	
Specified Strength (f' c)				8000	9000	
Required Strength (f' cr)				9500	10600	
Specified Test Age (Days)				28 Days	28 Days	
	Material Type	Material Source	ASTM Standard			
Cementitious #1 (lbs)	Cement	McInnis Type I/II	C-150	444 lbs.	480 lbs.	lbs.
Cementitious #2 (lbs)	Slag	Newcem Grade 120	C-989	296 lbs.	320 lbs.	lbs.
Cementitious #3 (lbs)				lbs.	lbs.	lbs.
Fine Aggregate (lbs)	Sand	LI Natural (Coram)	C-33	1445 lbs.	1393 lbs.	lbs.
Coarse Aggregate #1 (lbs)	Stone	Tilcon Clinton Point (#67)	C-33	800 lbs.	800 lbs.	lbs.
Coarse Aggregate #2 (lbs)		Tilcon Clinton Point (#8)	C-33	850 lbs.	850 lbs.	lbs.
Coarse Aggregate #3 (lbs)				lbs.	lbs.	lbs.
Amount of Water (gals)	Water	NYC	C-94	31.5 gals.	31.5 gals.	gals.
Admixture #1 (oz)	HRWR	Sika Viscocrete 2100	C494	37.0 oz	40.0 oz	oz
Admixture #2 (oz)	HRWR	Sika- Sikatarad 440	C-494	14.8 oz	16.0 oz	oz
Admixture #3 (oz)	HRWR	Sika 475	C-494	18.5 oz	20.0 oz	oz
Other						
Water-Cement Ratio				0.354	0.328	
Slump/Spread (inches ± tolerance)				8.0" ± 1.0	8.0 ± 1.0	±
Air Content (% ± tolerance)				2.0 %± 1.5	2.0 %± 1.5	%±
Unit Weight (lbs./ft ³)				151.8 lbs./ft ³	152.0 lbs./ft ³	lbs./ft ³

4 Concrete Testing Lab Director's Statement and Signature Required for all applications.

I hereby state that the above information is correct and complete to the best of my knowledge and that the above tests were performed in accordance with all Administrative Code Provisions and Departmental Rules, Regulations and Directives

Falsification of any statement is a misdemeanor and is punishable by a fine or imprisonment, or both.

It is unlawful to give to a city employee, or for a city employee to accept, any benefit, monetary or otherwise, either as a gratuity for properly performing the job or in exchange for special consideration. Violation is punishable by imprisonment or fine or both.

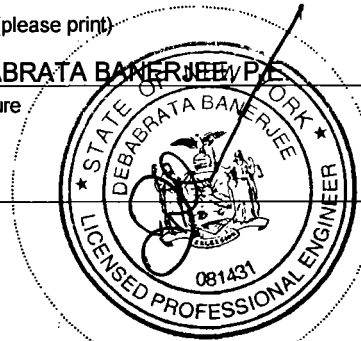
Name (please print)

DEBABRATA BANERJEE, P.E.

Signature

Date

11-05-19



P.E. / R.A. Seal (apply seal, then sign and date over seal)

5 Concrete Producer's Statement and Signature Required for all applications. Must be filled out by Owner of Production Facility.

I certify that the material type and source in section 3 above are available at my facility and that I will use such materials to produce the concrete mix(es) specified in section 3. I further certify that I will produce and deliver such mix(es) to the project site in accordance with the applicable code provisions of the NYC construction codes and that such mix(es) are appropriate for the placement conditions for the project identified in section 1 above (BC 1905.8.2).

Name (print) Alfredo Caruso

Title QC Manager

Signature

Date

11-5-19

NRMCA Certification Expiration Date (BC 1095.8.2) 08-27-20

Business Name Casa Redi mix Concrete Corp

Business Telephone (718) 589-1556

Business Address 886 Edgewater Road

Business Fax: (718) 589-9940

City Bronx

State NY

Zip 10474

6 Design Applicant's Statement and Signature Required for all applications. Must be filled out by P.E./R.A. responsible for plans.

I certify I have reviewed the concrete design mix(es) reported by the licensed testing lab and found them to be in compliance with the approved construction documents (BC 1905.6).

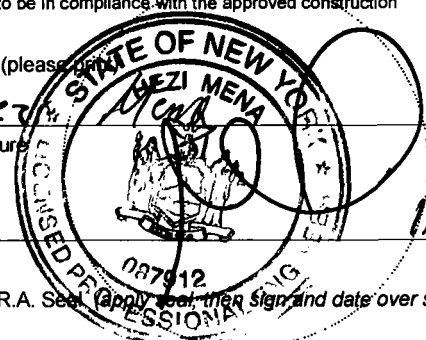
Name (please print)

Heri Menzies

Signature

Date

11-15-19



P.E. / R.A. Seal (apply seal, then sign and date over seal)

7 Building Owner's Statement and Signature Required for all applications.

Falsification of any statement is a misdemeanor and is punishable by a fine or imprisonment, or both. It is unlawful to give to a city employee, or for a city employee to accept, any benefit, monetary or otherwise, either as a gratuity for properly performing the job or in exchange for special consideration. Violation is punishable by a fine or imprisonment, or both. I understand that if I am found after hearing to have knowingly or negligently falsified or allowed to be falsified any certificate, form, signed statement, application, report or certification of the correction of violation required under the provisions of this code or of a rule of any agency, I may be barred from filing further applications or documents with the Department.

Name (print)

Robert Rosenthal

Title

Authorized Signature

Signature

Date

11/18/19

IMPACT

Concrete & Control Inspections, INC.
15-46 129th Street, College Point, New York 11356
Tel: (718) 939-7774 Fax: (718) 939-6444

The City of New York Department of Buildings Concrete Testing laboratory #000064
CONCRETE MIX DESIGN REPORT

CLIENT:	DEFALCO	DATE:	6/11/2018
		LAB NO.:	CASA -7-8-9-10K TB
Project:	QC mix 2016-18 2461 BROADWAY	MIX TYPE:	Trial
Supplier:	CASA REDI Mix	Date Expire:	6/11/2020

8000 psi + 1500 PSI Concrete Pump @ 28 days

Product	Source & Type	ASTM	S.G.	NYS Source No.
Cement	McInnis Type I/II	ASTM C150	3.15	
Slag	Newcem Grade 120	ASTM C989	2.88	
Fly Ash	-	ASTM C618	2.20	
Fine Agg.	Li Natural Coram	ASTM C33	2.63	
Coarse Agg.	Ticon NY- Clinton Point (#67)	ASTM C33	2.84	
Coarse Agg.	Ticon NY- Clinton Point (#8)	ASTM C33	2.80	
Water	NYC Potable	ASTM C94	1.00	
Admixture 1	Sika Viscocrete 2100	ASTM C494	1.0	
Admixture 2	Sika- Sikatarad 440	ASTM C494	1.00	
Admixture 3	Sika 475	ASTM C494	1.00	
Admixture 4	-	-	-	

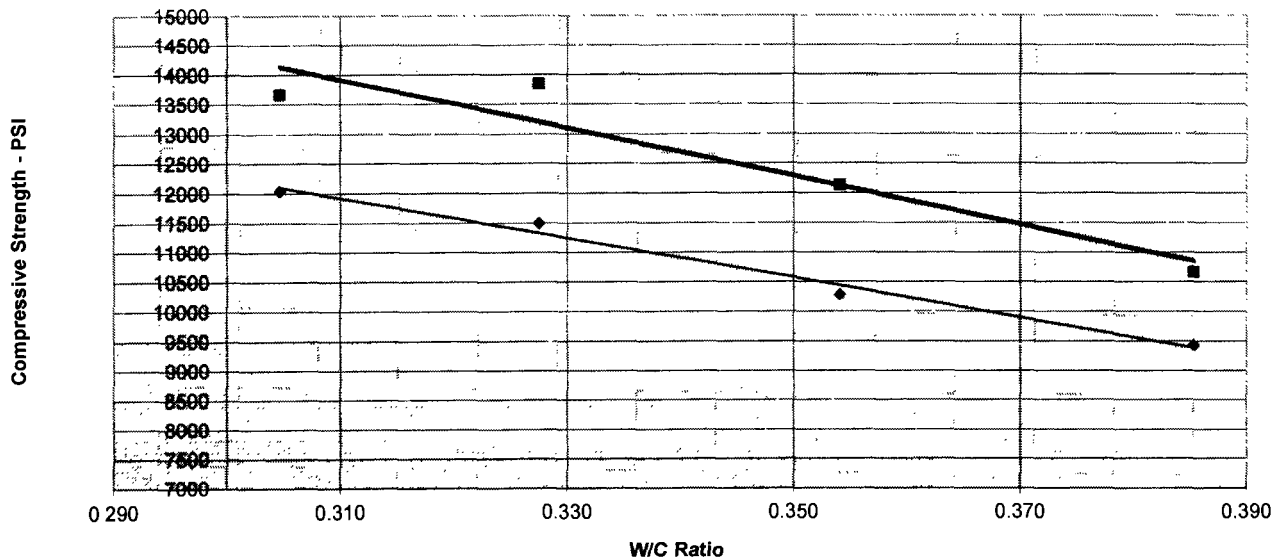
Recommended Mix Design # 2

Cement (lbs.)	444
Slag (lbs.)	296
Fly Ash (lbs.)	0
Fine Agg. (lbs.)	1445
Coarse Agg. (lbs)	800
Coarse Agg. (lbs)	850
Water (gals.)	31.5
Admixture 1 (oz.)	37.0
Admixture 2 (oz.)	14.8
Admixture 3 (oz)	18.5
Admixture 4 (Oz)	0.0
Slump (in.)	8.0" +/-1.0"
Air Content (%)	2 % +/-1.5%
U. Wt. P.C.F.	151.8 (Theoretical Unit Wt)
W/C Ratio	0.354



Debabrata Banerjee, P.E.

Compressive Strength vs. Water Cement Ratio



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	0	LAB NO.:	CASA -7-8-9-10K TB
	0	MIX TYPE:	Trial
PROJECT:	QC mix 2016-18		
	2461 BROADWAY		
SUPPLIER:	CASA REDI Mix		

8000 psi + 1500 PSI Concrete Pump @ 28 days

Aggregate Gradation Passing Percent Finer

Sieve Size	F.A.	C.A. #67	CA #8	FA C-33	CA #67	CA #8
2"					C-33	C-33
1 1/2"		100				
1"		100			100	
3/4"		90.4			90-100	
1/2"		36.9	100			100
3/8"	100.0	20.1	90.25	100	20-55	85-100
# 4	99.7	2	25.6	95-100	0-10	10-40
# 8	93.9	0.6	2.8	80-100	0-5	0-10
# 16	82.4		0.9	50-85		0-5
# 30	53.4			25-60		
# 50	10.8			5-30		
# 100	0.9					
FM	2.59					
Unit Weight Dry Rodded						
Specific Gravity	2.63					
Colometric Test						

Plate # 1

TRIAL MIXES - DRY BATCH WEIGHTS (lbs./Cubic Yards)

Point	Yield	Coarsest	Slag	F.A.	#67	#8	Water	Adx 1	Adx 2	Adx 3	Adx 4	Adx 5	Adx 6	W/C	Air %
1	26.8	408	272	0	1497	800	850	31.5	34.0	13.6	17.0	150.4	9.00	0.385	3.0
2	26.8	444	296	0	1445	800	850	31.5	37.0	14.8	18.5	151.6	9.00	0.354	3.0
3	26.8	480	320	0	1393	800	850	31.5	40.0	16.0	20.0	152.8	9.00	0.328	2.7
4	26.8	516	344	0	1341	800	850	31.5	43.0	17.2	21.5	153.2	8.50	0.305	2.7

COMPRESSIVE STRENGTH RESULTS (ASTM C39) - P.S.I. (4" x 8" Cylinders)

										MOE
Point	w/c ratio	7 Days Results		Average	28 Days Results				Average	28 Day
1	0.385	9764	9112	9438	10674	10589	10736		10666	
2	0.354	10156	10420	10288	12206	12073	12140		12140	6994072
3	0.328	11427	11572	11500	13487	13841	14225		13851	7469168
4	0.305	12317	11776	12047	13117	13867	14033		13672	7405651

Shrinkage %											
					56Days Results		Average		7 day	14 Day	28 Day
Point	w/c ratio	3 Days		Average							
1	0.385	8355	8076	8216	10914	10047	10481		0.00	0.016	0.017
2	0.354	8463	8413	8438	12598	13270	12934		0.00	0.011	0.006
3	0.328	9173	9378	9276	13425	13496	13461		0.01	0.001	0.005
4	0.305	9711	9469	9590	15146	15179	15163		0.00	0.006	0.011

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The City of New York Department of Buildings Concrete Testing laboratory #000064

CONCRETE MIX DESIGN REPORT

CLIENT:	DEFALCO	DATE:	6/11/2018
		LAB NO.:	CASA -7-8-9-10K TB
Project:	QC mix 2016-18 2461 BROADWAY	MIX TYPE:	Trial
Supplier:	CASA REDI Mix	Date Expire:	6/11/2020

9000 psi + 1600 PSI Concrete Pump @ 28 days

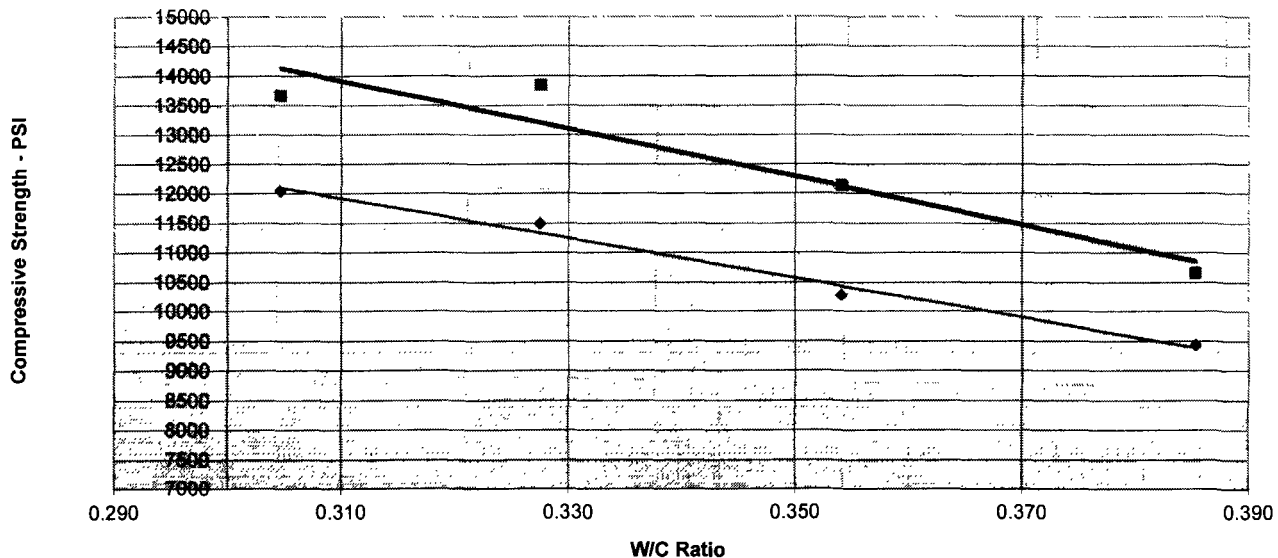
Product	Source & Type	ASTM	S.G.	NYS Source No.
Cement	McInnis Type I/II	ASTM C150	3.15	
Slag	Newcem Grade 120	ASTM C989	2.88	
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Coarse Agg.	Ticon NY- Clinton Point (#8)	ASTM C33	2.80	
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Admixture 1	Sika Viscocrete 2100	ASTM C494	1.0	
Admixture 2	Sika- Sikatarad 440	ASTM C494	1.00	
Admixture 3	Sika 475	ASTM C494	1.00	
Admixture 4	-	-	-	

Recommended Mix Design # 3

Cement (lbs.)	480
Slag (lbs.)	320
Fly Ash (lbs.)	0
Fine Agg. (lbs.)	1393
Coarse Agg. (lbs)	800
Coarse Agg. (lbs)	850
Water (gals.)	31.5
Admixture 1 (oz.)	40.0
Admixture 2 (oz.)	16.0
Admixture 3 (oz)	20.0
Admixture 4 (Oz)	0.0
Slump (in.)	8.0" +/-1.0"
Air Content (%)	2 % +/-1.5%
U. Wt. P.C.F.	152.0 (Theoretical Unit Wt)
W/C Ratio	0.328

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1"		100			100	
3/4"		90.4			90-100	
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3/8"	100.0	20.1	90.25	100	20-55	85-100
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FM	2.59					
Unit Weight Dry Rodded						
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Colometric Test						

Plate # 1

TRIAL MIXES - DRY BATCH WEIGHTS (lbs./Cubic Yard)

						#67	#8								
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