



TR3: Technical Report Concrete Design Mix

Must be typewritten.

DEPT BLDGS Job No. 420665239



Scan Code ESHS5438969

The TR3 is required prior to permit

1 Location Information Required for all applications.

House No(s) 1-83 Street Name Beach 101ST Street
Borough Queens Block 16174 Lot 42 BIN 4457926 CB No. 414

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 Point State NEW YORK Zip 11356 Mobile Telephone (917) 577-7540
E-Mail DBANER@GMAIL.COM
Director's Lic. Number 081431 ☒ RE ☐ 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)	☒ Trial Mix ☐ Field Experience	☐ Trial Mix ☐ Field Experience	☐ Trial Mix ☐ Field Experience
Date Trial Mixture Performed	3-1-18		
Specified Strength (f' c)	4000		
Required Strength (f' cr)	5200		
Specified Test Age (Days)	28		

	Material Type	Material Source	ASTM Standard			
Cementitious #1 (lbs)	Cement	Lafarge I/II	C-150	348 lbs.	lbs.	lbs.
Cementitious #2 (lbs)	Slag	Essroc Gr 100	C-989	232 lbs.	lbs.	lbs.
Cementitious #3 (lbs)				lbs.	lbs.	lbs.
Fine Aggregate (lbs)	Sand	Corbet	C-33	1300 lbs.	lbs.	lbs.
Coarse Aggregate #1 (lbs)	Stone	Martin Marietta (#67)	C-33	1700 lbs.	lbs.	lbs.
Coarse Aggregate #2 (lbs)				lbs.	lbs.	lbs.
Coarse Aggregate #3 (lbs)				lbs.	lbs.	lbs.
Amount of Water (gals)	Water	NYC	C-94	31.3 gals.	gals.	gals.
Admixture #1 (oz)	AIR	BASF AE 90	C-260	2.0 oz	oz	oz
Admixture #2 (oz)	HRWR	BASF Glenium 7620	C-494	37.7 oz	oz	oz
Admixture #3 (oz)	HRWR	BASF Poly Heed 997	C-494	23.2 oz	oz	oz
Other						
Water-Cement Ratio				0.45		
Slump/Spread (inches $\pm$ tolerance)				8.0 $\pm$ 1.0	$\pm$	$\pm$
Air Content (% $\pm$ tolerance)				6 $\pm$ 1.5	$\pm$	$\pm$
Unit Weight (lbs./ft ³)				141.6 lbs./ft ³	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.

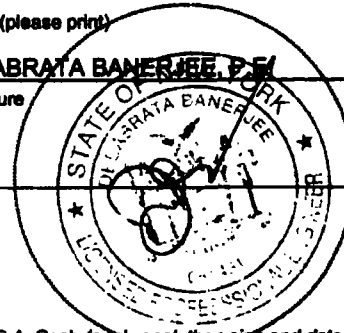
Name (please print)

DEBABRATA BANERJEE, P.E.

Signature

Date

08-28-19



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

5 Concrete Producer's Statement and Signature Required for all applications.

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

Must be filled out by Owner of Production Facility.

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 code 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

9/4/19

NRC/CA Certification Expiration Date (BC 1095.8.2) 6-2-20

Business Name US Concrete NYC Division

Business Telephone 718-939-3030

Business Address 120-05 31st Avenue

Business Fax: 718-539-1998

City Flushing

State NY

Zip 11354

6 Design Applicant's Statement and Signature Required for all applications.

Must be filled out by P.E./R.A. responsible for plans.

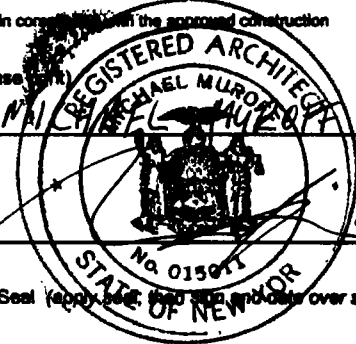
I certify I have reviewed the concrete design mix(es) reported by the licensed testing lab and found them to be in compliance with the approved construction documents (BC 1905.6).

Name (please print)

Signature

Date

9/2/19



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)

Anthony Marino

Title

President

Signature

Date

8/30/2019

IMPACT

CONCRETE & CONTROL INSPECTIONS, INC.

15-46 129TH STREET, COLLEGE POINT, NEW YORK 11356

TEL: (718) 939-7774 FAX: (718) 939-6444

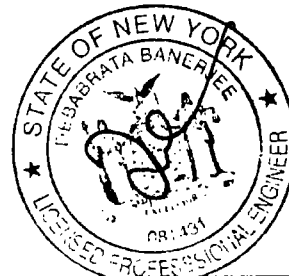
CONCRETE MIX DESIGN REPORT NYC DOB LICENSE # 000064

CLIENT:	Tahoe Development	DATE:	3/1/18
		LAB NO.:	2018-3-1-18SLAG
		MIX TYPE:	Trial
		Expire on	3/1/2020
Project:	Impact Reference Mix 1-83 Beach 101ST Street, Queens		
Supplier:	USC Brooklyn (FB Cloumbia Street , Smith Street, Kings Mc Donald Ave-Bushwick)		
	4000 psi + 1200 psi A.E. Concrete Pump @ 28 Days		

Product	Source & Type	ASTM	S.G.	NYS Source No.
Cement	Lafarge Type I/II	ASTM C150	3.15	
Slag	Essroc Grade 100	ASTM C989	2.88	-
Fly Ash		ASTM C618	2.20	-
Silica Fume		ASTM C1240	2.20	-
Fine Agg.	Corbet	ASTM C33	2.63	-
Coarse Agg.	Martin Marietta (#67)	ASTM C33	2.65	-
Water	NYC Potable	ASTM C94	1.00	-
Admixture 1	BASF AE 90	ASTM C260	1.00	-
Admixture 2	BASF Glenium 7620	ASTM C494	1.10	-
Admixture 3	BASF Polyheed 997	ASTM C494	-	-

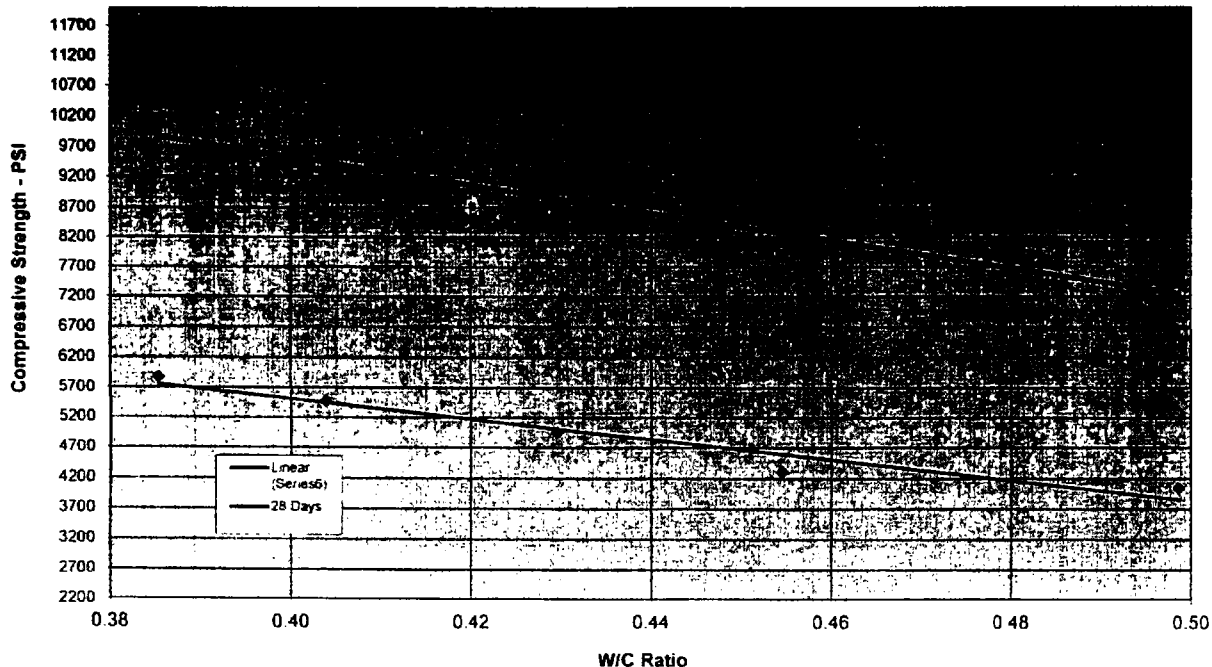
Recommended Mix Design # 2

Cement (lbs.)	348
Slag (lbs.)	232
Fly Ash (lbs.)	0
Microsilica (lbs.)	
Fine Agg. (lbs.)	1300
Coarse Agg. (lbs.)	1700
Water (gals.)	31.3
Admixture 1 (oz.)	2.0
Admixture 2 (oz.)	37.7
Admixture 3 (oz.)	23.2
Slump (in.)	8.0" ± 1.0"
Air Content (%)	6.0 % ± 1.5%
U. Wt. P.C.F.	141.6
W/C Ratio	0.45



Debabrata Banerjee, P.E.

Compressive Strength vs. Water Cement Ratio



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CONCRETE MIX DESIGN REPORT

CLIENT:	Tahoe Development 0 0	DATE:	3/1/18
		LAB NO.:	2018-3-1-18SLAG
PROJECT:	Impact Reference Mix 1-83 Beach 101ST Street, Queens	MIX TYPE:	Trial
		Expire on	3/1/2020
SUPPLIER:	USC Brooklyn (FB Cloumbia Street , Smith Street, Kings Mc Donald Ave-Bushwick)		
	4000 psi + 1200 psi A.E. Concrete Pump @ 28 Days		

**Aggregate Gradation
Passing Percent Finer**

Sieve Size	F.A.	#67 Stone	Stone C-33	Sand C-33
2"				
1 1/2"		100.00		
1"		100.0	100	
3/4"		91.80	90-100	
1/2"		37.50		
3/8"	100.0	20.00	20-55	100
# 4	99.1	1.43	0-10	95-100
# 8	95.8		0-5	80-100
# 16	82.2			50-85
# 30	54.9			25-60
# 50	20.1			5-30
# 100	1.9			0-10
FM	2.46			
Unit Weight Dry Rodded				
Specific Gravity	2.63	2.65		
Colometric Test	Plate # 1			

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

Point	Yield	Cement	Slag	FlyAsh	Silica	F.A.	C.A.	Water	Adx 1	Adx 2	Adx 3	Unit Wt.	Slump(in)	W/C	Air %
1	27.0	324	216	0	0	1320	1700	32.0	1.9	35.1	21.6	141.6	8.00	0.49	5.4
2	27.0	348	232	0	0	1300	1700	31.3	2.0	37.7	23.2	141.6	8.00	0.45	5.7
3	27.0	372	248	0	0	1280	1700	31.6	2.1	40.3	24.8	142.0	7.75	0.42	5.4
4	27.0	396	264	0	0	1230	1700	31.6	2.2	44.2	26.4	143.2	8.50	0.40	5.2
5	27.0	423	280	0	0	1180	1700	32.1	2.4	45.7	28.1	143.2	8.50	0.38	6.4

Point	w/c ratio	7 Days Results		Average	28 Days Results			Average
1	0.49	4017	4081	4049	7511	7455	7730	7565
2	0.45	4208	4402	4305	7889	7922	7895	7902
3	0.42	5160	4758	4959	8769	8908	8130	8602
4	0.40	5638	5313	5476	9014	9887	9700	9534
5	0.38	5675	6073	5874	9892	10421	9969	10094

Shrinkage Data								
Point	w/c ratio	3 Days Results		Average	56 Days Results		Average	
1	0.49	3430	3527	3479			#DIV/0!	0.014
2	0.45	3337	3269	3303			#DIV/0!	0.032
3	0.42	3892	3838	3865			#DIV/0!	0.027
4	0.40	4173	4477	4325			#DIV/0!	0.028
5	0.38	4779	4545	4662			#DIV/0!	0.025

112201-112260