



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

DEPT BLDGS Job No. 321309124

 Scan Code ESHS5165357


The TR3 is required prior to permit

1 Location Information *Required for all applications.*

House No(s) 2353	Street Name Coney Island Avenue (For work 6-22-17 and onwards only)			
Borough Brooklyn	Block 7315	Lot 67	BIN 3421806	CB No. 315

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
E-Mail DBANER@GMAIL.COM		Mobile Telephone (917) 577-7540
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)	☒ Trial Mix ☐ Field Experience	☐ Trial Mix ☐ Field Experience	☐ Trial Mix ☐ Field Experience
Date Trial Mixture Performed	10/16/15		
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	Lehigh Type I/II	C-150	345 lbs.	lbs.	lbs.
Cementitious #2 (lbs)	Slag	Lehigh Allcem	C-989	230 lbs.	lbs.	lbs.
Cementitious #3 (lbs)				lbs.	lbs.	lbs.
Fine Aggregate (lbs)	Sand	LI Natural (Roanoke)	C-33	1420 lbs.	lbs.	lbs.
Coarse Aggregate #1 (lbs)	Stone	NY Sand & Stone	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	31.6 gals.	gals.	gals.
Admixture #1 (oz)	Air	Sika Air	C-260	2.3 oz	oz	oz
Admixture #2 (oz)	HRWR	Sika Viscocrete 2100	C-494	26.4 oz	oz	oz
Admixture #3 (oz)				oz	oz	oz
Other	SUPPLIER MAY ADJUST	ADMIXTURE AS PER	NYC DOB			
Water-Cement Ratio	BULLETIN 2010-018			0.449		
Slump/Spread (inches ± tolerance)				7 ± 1	±	±
Air Content (% ± tolerance)				6.0 %± 1.5	%±	%±
Unit Weight (lbs./ft ³)				142.0 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

Signature

Date

06-22-17

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)

Gerard Gargano

Title

Member

Signature

Business Name Stillwell Ready Mix

NRMCA Certification Expiration Date (BC 1095.8.2)

Business Telephone (718) 373-3364

Business Address 2543 Stillwell Ave

Business Fax:

City Brooklyn

State NY

Zip 11223

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

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)

Yongjun Li

Title

Partner

Signature

Date

7/5/17

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

CLIENT:	ZHL Group, INC	DATE:	10/16/15
		LAB NO.:	2015-10-16-15P
		MIX TYPE:	3/4 Pump
Project:	Impact Reference Mix for Impact's Client for Project	METHOD:	Trial
	2353 Coney Island Avenue, Brooklyn (For work 6/22/17 and onwards)	SAMPLED BY:	Impact
Supplier:	Stillwell Ready Mix	Expire on:	10/16/2017

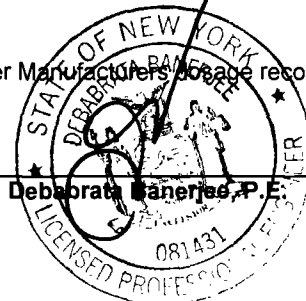
4000 psi + 1200 A.E. Concrete Pump @ 28 Days

Product	Source & Type	ASTM	S.G.	NYS Source No.
Cement	Lehigh-II	ASTM C150	3.15	-
Slag	Lehigh Allcem	ASTM C989	2.88	-
Fly Ash	-	ASTM C618	2.20	-
Silica Fume	-	ASTM C1240	2.20	-
Fine Agg.	L I Natural(ronoake)	ASTM C33	2.64	#10 -16F
Coarse Agg.	NYSand and Stone (#67) (Wantage)	ASTM C33	2.82	173240
Water	NYC Potable	ASTM C94	1.00	-
Admixture 1	Sika- Sika AIR	ASTM C260	1.03	-
Admixture 2	Sika-Viscocrete 2100	ASTM C494	1.20	-
Admixture 3	Sikatarad 440	-	-	-

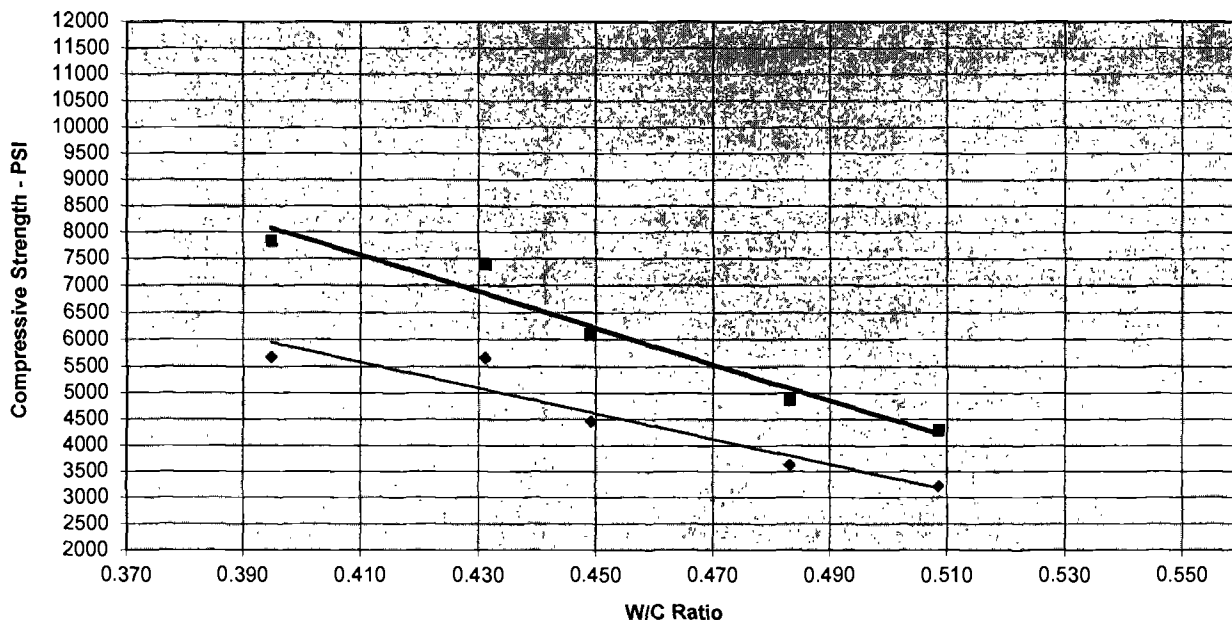
Recommended Mix Design #3

Cement (lbs.)	345
Slag (lbs.)	230
Fly Ash (lbs.)	0
Microsilica (lbs.)	0
Fine Agg. (lbs.)	1420
Coarse Agg. (lbs.)	1700
Water (gals.)	31.0
Admixture 1 (oz.)	2.3
Admixture 2 (oz.)	26.4
Admixture 3 (oz.)	
Slump (in.)	7+-1"
Air Content (%)	6 % +/-1.5%
U. Wt. P.C.F.	142.0
W/C Ratio	0.449

Sikatarad 440 Can be added as per Manufacturer's dosage recommendation



Compressive Strength vs. Water Cement Ratio



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Aggregate Gradation Passing Percent Finer

Sieve Size	F.A.	C.A. (#67)	C-33 Sand	C-33 Stone
2"				
1 1/2"				
1"		100.0		100
3/4"		90.70		90-100
1/2"				20-100
3/8"	100.0	26.70	100	20-55
# 4	95.6	2.6	90-100	0-10
# 8	90.1	1.8	75-100	0-5
# 16	78.5		50-87	
# 30	55.6		25-62	
# 50	20.0		10-30	
# 100	2.5		1-10	
FM				
Unit Weight Dry Rodded				
Specific Gravity	2.64			
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	26.8	285	190			1510	1700	29.0	2.2	21.0	0.0	143.6	7.00	0.509	6.0
2	26.8	300	200			1490	1700	29.0	2.0	22.3	0.0	142.0	7.75	0.483	7.0
3	27.1	345	230			1420	1700	31.0	2.3	26.4	0.0	142.0	8.00	0.449	7.0
4	27.2	366	244			1390	1700	31.6	2.5	29.5	0.0	141.2	8.00	0.431	7.2
5	27.1	400	266			1340	1700	31.6	2.3	33.6	0.0	141.3	8.25	0.395	6.8

Point	w/c ratio	7 Days Results	Average	28 Days Results	Average
1	0.509	3136	3312	3224	4610
2	0.483	3538	3716	3627	4789
3	0.449	4506	4411	4459	6125
4	0.431	5682	5647	5665	7314
5	0.395	5566	5790	5678	8017
					4078
					4197
					4295
					4873
					6092
					7398
					7838