



# SHELTERA CONSULTANTS PVT. LTD.

A House Of Structural Engineers, Project Management Consultants,  
Geotechnical Investigations & Non Destructive Testing.

CIN: U72900DL2010PTC201133



SCPL/2023/183

## NON DESTRUCTIVE TESTING REPORT OF GREEN AVENUE, PLOT NO:-HRA 10 AT IA, SURAJPUR, PHASE-2, G. B. NAGAR, UTTAR PRADESH.



Report for

M/S REARCO PVT. LTD.FOR JBK DEVELOPERS PVT LTD

By  
**SHELTERA CONSULTANTS (PVT) LTD**  
74,SOUTH PATEL NAGAR MARKET,NEW DELHI-08,  
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## A. INTRODUCTION

The Concerned authority wants to insure about the quality/strength of in-situ concrete in the Beams, Columns & Slabs of Nine(9) Buildings at Green Avenue, Greater Noida. Hence, a reference was made to us to conduct Ultrasonic Pulse Velocity Test (UPVT), Core test, Rebound Hammer Test (RHT), Carbonization Test & Cover Meter test on the various floors of the constructed towers and to furnish the report.

In response to this, RHT, UPVT, Core Cutter, Cover Meter and Carbonization Test was conducted by us from 09-10-2023 to 25-11-2023.

This report in brief summarizes the outcome of the test carried out.

## B. TEST LOCATIONS

In Building, the various tests have been carried out on the Locations as given below. (Refer photographs below).

- 1) The Ultrasonic Pulse Velocity Test has been conducted at Columns & Beams on Basement, Ground & one on each floor as per the attached drawings.
- 2) The Rebound Hammer test is conducted at has been conducted at Columns & Beams on Basement, Ground & one on each floor as per the attached drawings.
- 3) Half cell potential test has been conducted at random locations on Columns, Beams & Slabs as per the attached Drawings.
- 4) The core has been extracted from the Floor Roof slabs & Beams of Existing Building as per location given in the attached Drawings.
- 5) Carbonation test has been conducted at random locations on Columns, Beams & Slabs as per the attached Drawings.
- 6) The Cover Meter Test has been conducted at Columns & Beams on Basement, Ground & one on each floor as per the attached drawings.

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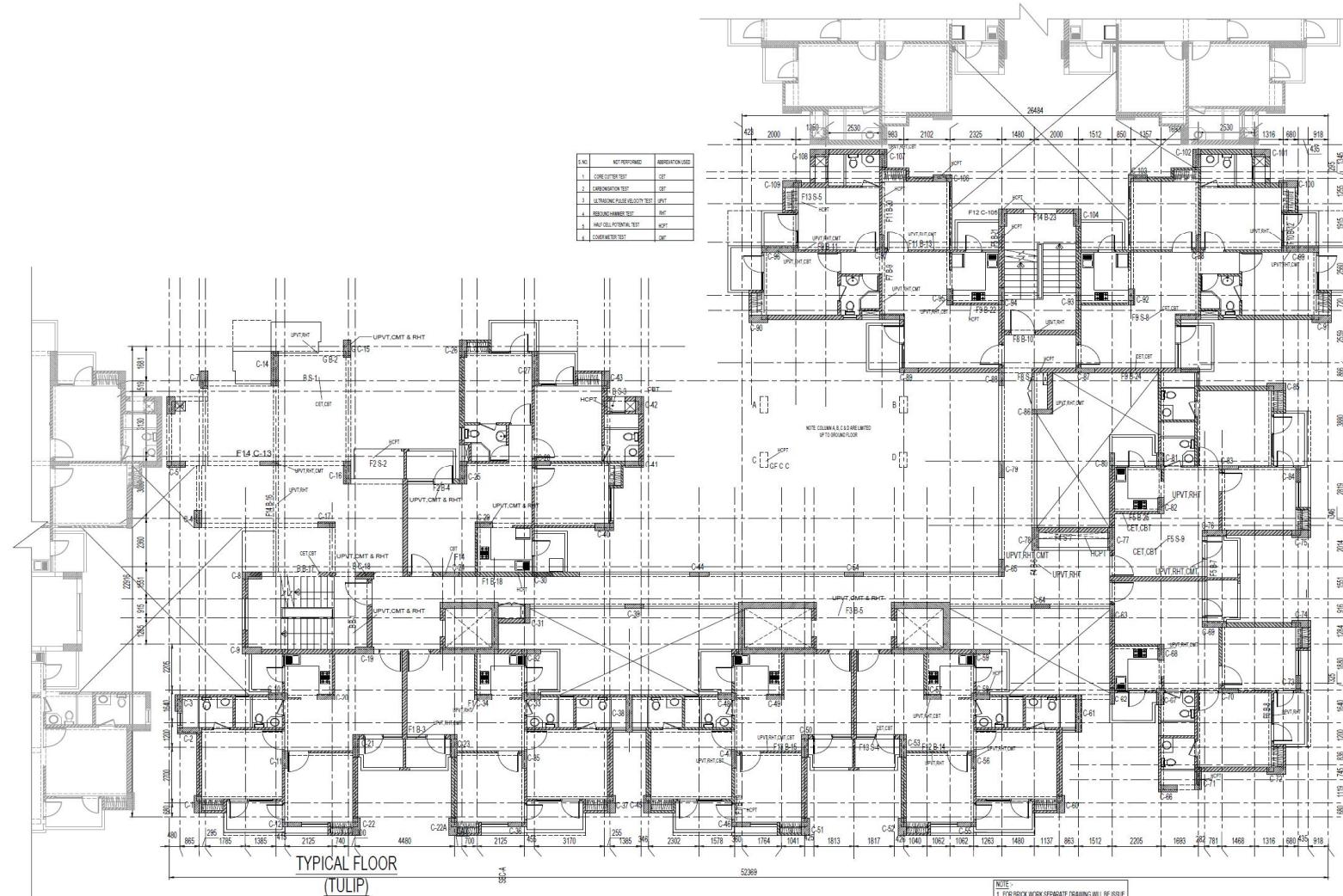
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## C. SITE LAYOUT

## TULIP BUILDING



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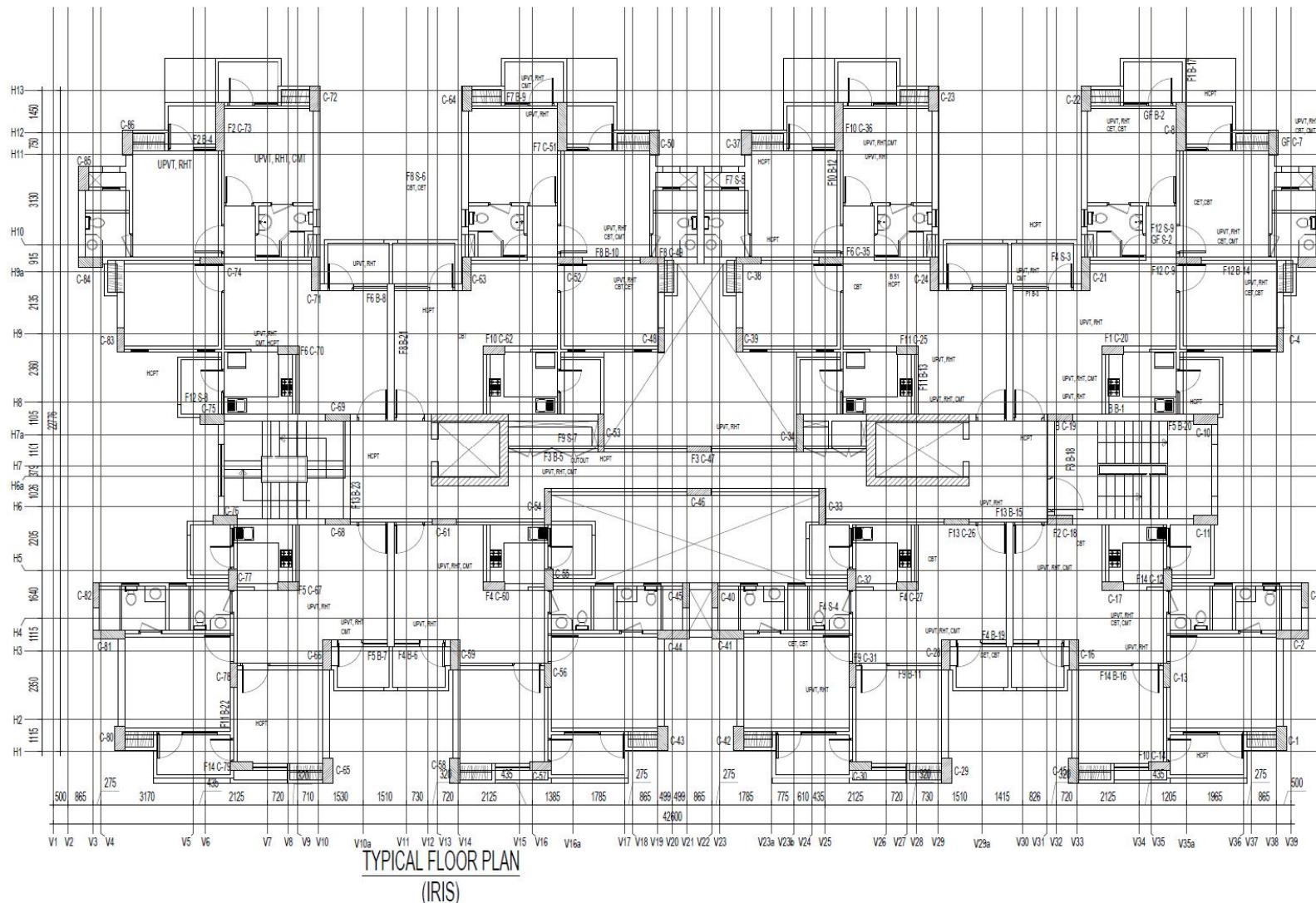
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## IRIS BUILDING



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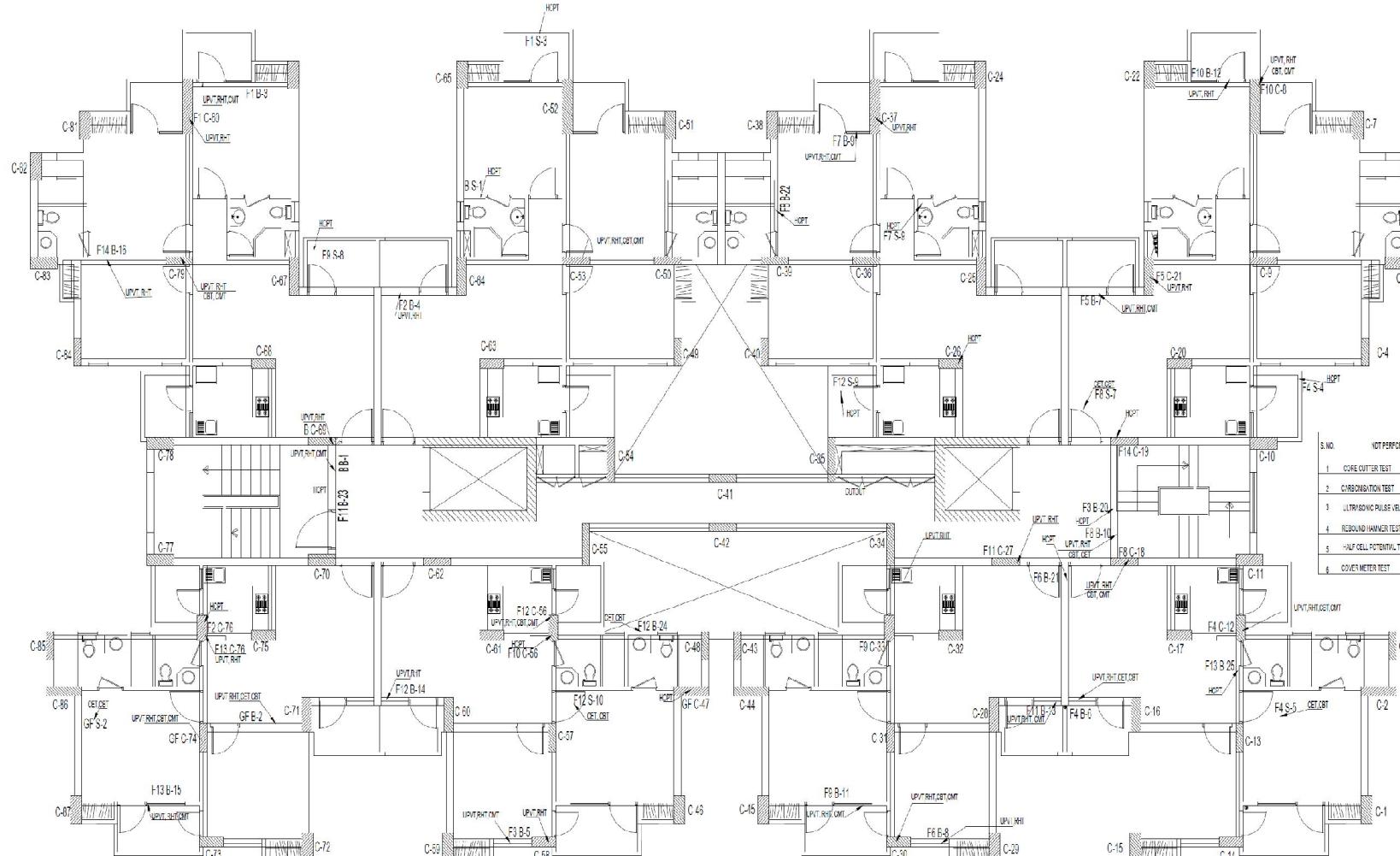
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## CASPIA BUILDING



TYPICAL FLOOR PLAN  
(CASPIA)

NOTE:-  
1. FOR BRICK WORK SEPARATE DRAWING WILL BE ISSUE.

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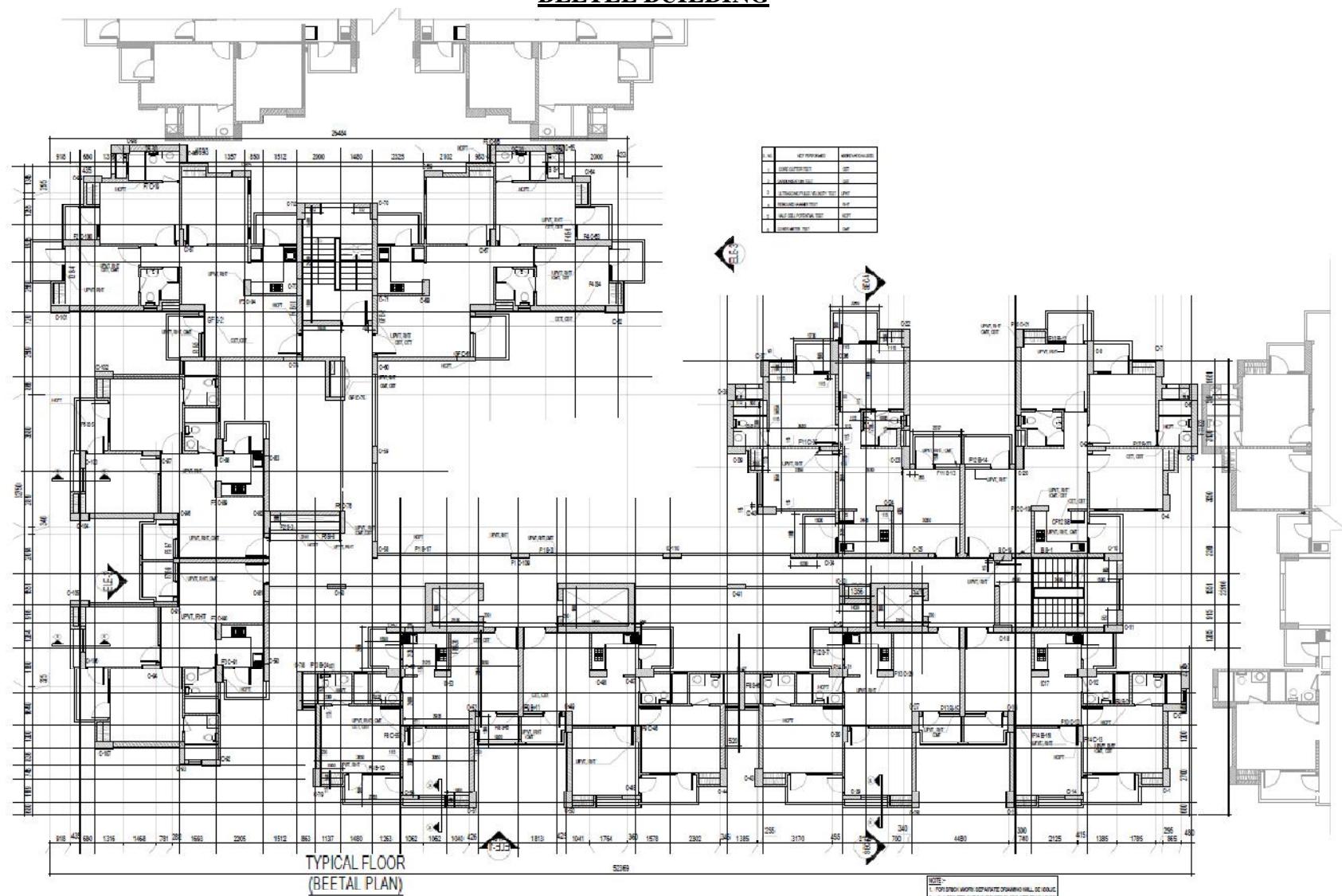
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## BEETEL BUILDING



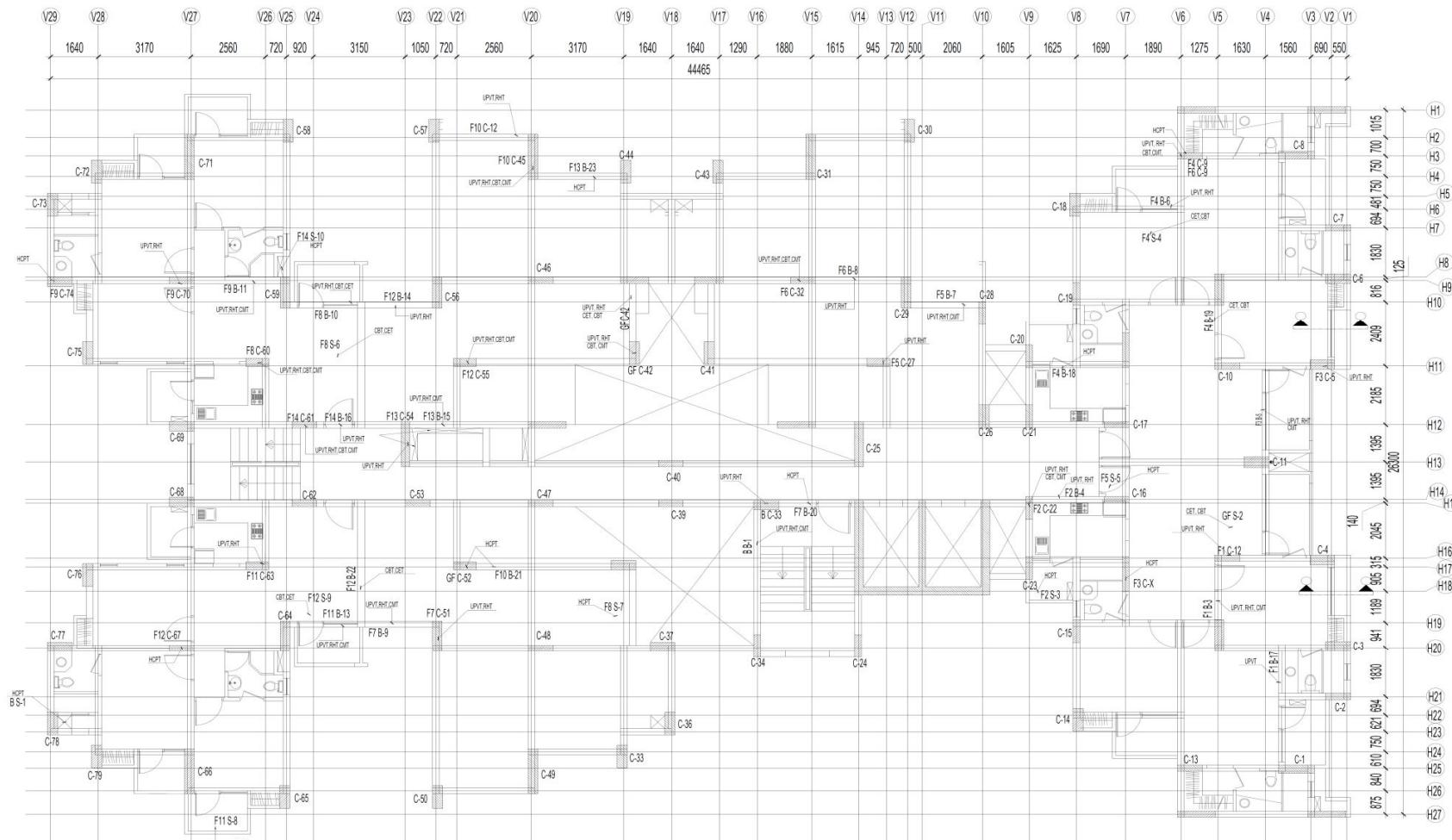
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## LOTUS BUILDING



TYPICAL FLOOR PLAN  
(LOTUS)

S. NO.	NOT PERFORMED	ABBREVIATION USED
1	CORE CUTTER TEST	CBT
2	CARBONISATION TEST	CBT
3	ULTRASONIC PULSE VELOCITY TEST	UPVT
4	REBOUND HAMMER TEST	RHT
5	HALF CELL POTENTIAL TEST	HCP
6	COVER METER TEST	CMT

NOTE :-  
1. FOR BRICK WORK SEPARATE DRAWING WILL BE ISSUE



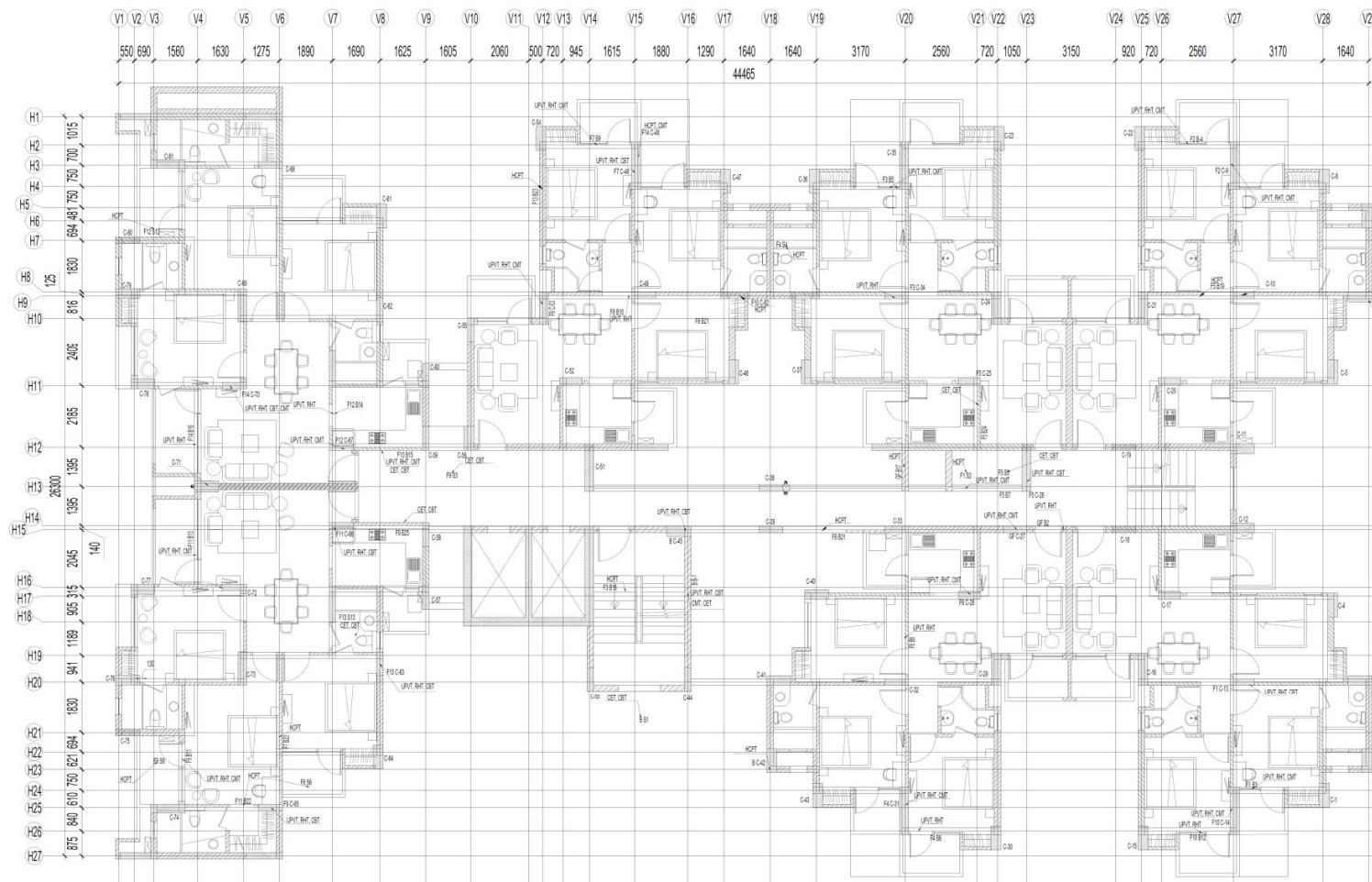
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## ORCHID BUILDING



TYPICAL FLOOR PLAN  
(ORCHID)

S. NO	NOT PERFORMED	ABBREVIATION USED
1	CORE CUTTER TEST	GET
2	CARBONISATION TEST	GPT
3	ULTRASOUND PULSE VELOCITY TEST	UPVT
4	REBOUND HAMMER TEST	RHT
5	HALF CELL POTENTIAL TEST	HCP
6	COVER METER TEST	CMT

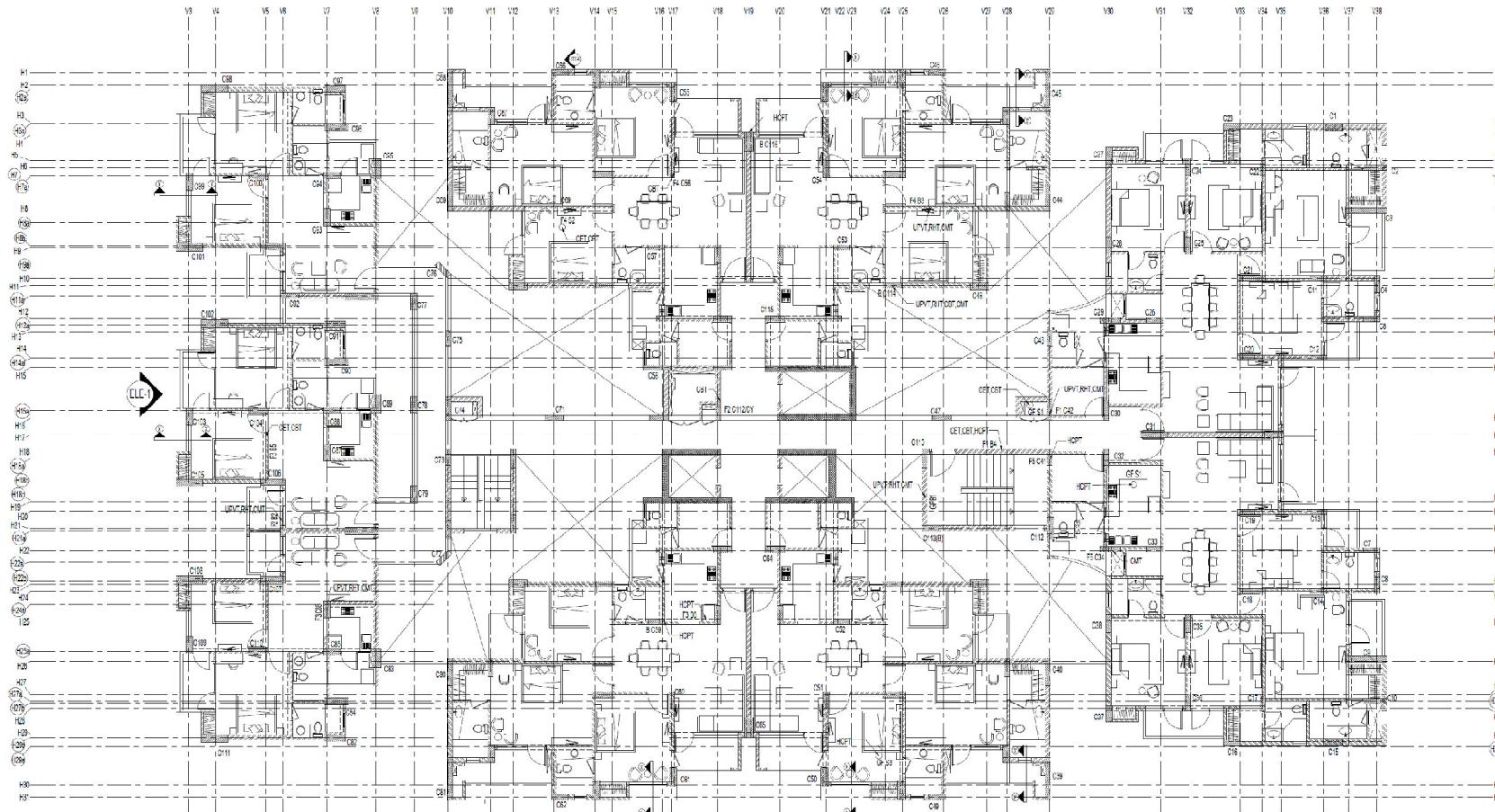
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## **ROSEWOOD BUILDING**



## TYPICAL FLOOR (ROSE WOOD)

SL NO	TEST PERFORMED	APPROVAL STATUS
1	OZONE DESTRUCTION TEST	OK
2	CHLORINATION TEST	OK
3	TOE BREAKDOWN VOLTAGE (TBDV)	N/A
4	REBOUND RADIUS TEST	N/A
5	FLAME SPREAD POTENTIAL TEST	NOT APPROVED

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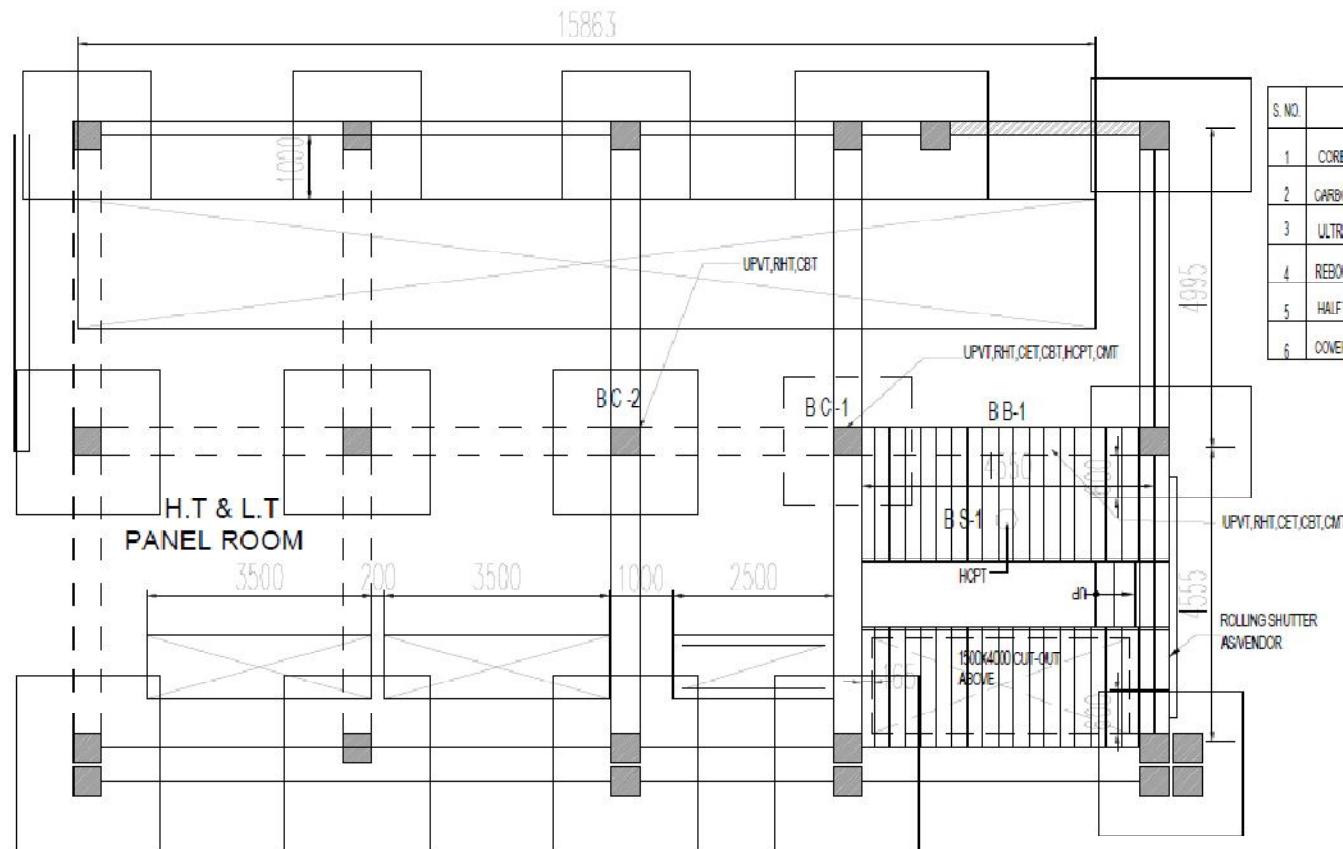
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## PODIUM BUILDING



S. NO.	NOT PERFORMED	ABBREVIATION USED
1	CORE CUTTER TEST	CET
2	CARBONISATION TEST	CBT
3	ULTRASONIC PULSE VELOCITY TEST	UPVT
4	REBOUND HAMMER TEST	RHT
5	HALF CELL POTENTIAL TEST	HCPT
6	COVER METER TEST	CMT

## PODIUM (BASEMENT)

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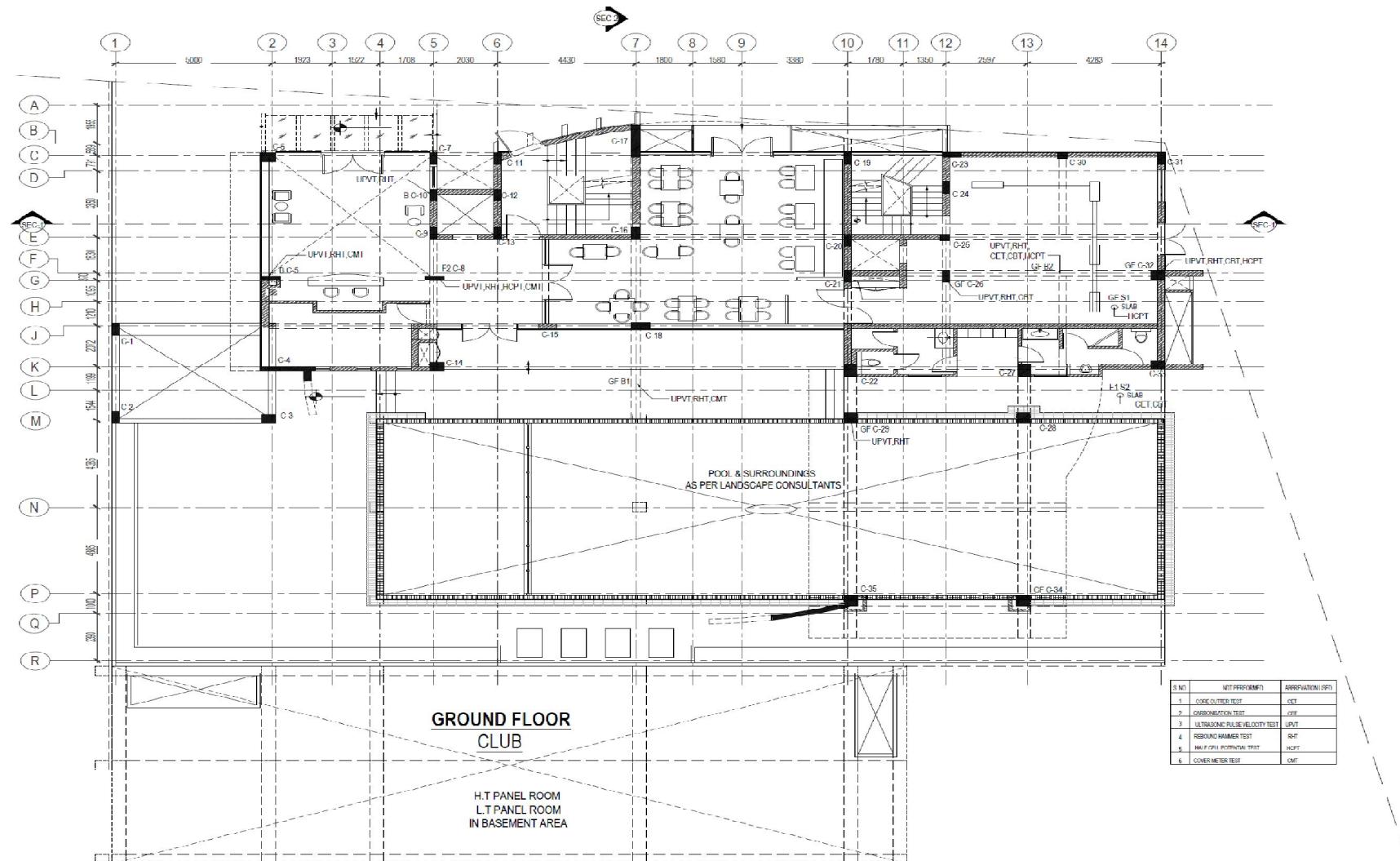
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## CLUB BUILDING



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## D. ULTRASONIC PULSE VELOCITY

In order to assess the quality/estimated strength if in-situ concrete in the Columns & Beams of the Building, The Ultrasonic Pulse Velocity test was conducted on Columns & Beams of the Existing Building at random on the exposed concrete surface by forming grids. (*Refer sketches*)

The tests were conducted using "Pundit" (Portable Ultrasonic Non-Destructive Digital Indicating Tester) equipment from M/s. Proceq. S A Switzerland and as per the guidelines in Indian Standards IS: 13311 –part 1-1992.

The results of the tests are depicted in the enclosed sketches along with quality grading/ strength chart.

**Table 2 Velocity Criterion for Concrete Quality Grading**

Sl No.	Pulse Velocity by Cross Probing ( km/sec )	Concrete Quality Grading
1.	Above 4.5	Excellent
2.	3.5 to 4.5	Good
3.	3.0 to 3.5	Medium
4.	Below 3.0	Doubtful

**Note — In case of "doubtful" quality it may be necessary to carry out further tests.**

## E.REBOUND HAMMER TEST

In order to assess the Quality/-Estimated strength if in-situ concrete, The Rebound Hammer Test was conducted on the Columns & Beams of the Existing Building at random on the exposed concrete surface by forming grids.

The tests were conducted using as per the guidelines in Indian Standards IS: 13311 –Part 2-1992.

The Result of the rebound Hammer test will give the strength of the Concrete up to the depth of 30mm from the surface. The results of the tests are depicted in the enclosed sketches along with strength chart.

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## F. CORE CUTTER TESTING

In order to assess the quality/-estimated strength if in-situ concrete in the Beams & Slabs of Existing Building, the Core cutter test was conducted on Beams & Slabs of Existing Building at random on the exposed concrete surface (**Refer sketches.**)

The tests were conducted By using “Core Cutting Machine & Compression Testing Machine” as per the guidelines in Indian Standards IS: 516 & IS: 1199.

The Equivalent Cube Strength can be estimated in two Steps. In the First Step a Correction for the effect of Length/Diameter ratio is applied to convert the Core Length to an Equivalent Standard Cylinder Strength. In the Second Step Appropriate relationship between Strength of cylinder and Cube is used to convert the Equivalent Standard Cylinder strength obtain in Step 1 to equivalent Cube Strength. This Conversion to cube strength may be based on the general accepted average relationship:

$$\text{Cube Strength} = 1.25 \times \text{Cylinder Strength}$$

( for L/D = 2.0 )

## G. CARBONIZATION TEST

Concrete is alkaline in nature. The pH value of concrete at the time of construction is around 12.5. During the course of time; carbon di-oxide from external environment enters inside the concrete. Because of the chemical action of carbon dioxide on calcium carbonate, the alkaline environment changes to acidic environment. This is one of the necessary conditions for corrosion. This change can be detected by phenolphthalein test. A solution of phenolphthalein in dilute alcohol is usually used because it has a very strong dark blue colour that is easily visible on any kind of concrete surface, which has retained its alkalinity. But it changes its colour on the concrete surface which no longer remains alkaline due to the action of carbon dioxide, thus paving the way for the corrosion of steel rebars.

The change in colour of phenolphthalein take place as pH value changes from 12.5 towards lower pH once the pH value reduces below 10 passive layers layers in the rebar is broken. The freshly broken concrete surface is sprayed with phenolphthalein indicator solution. The outer most part of the freshly broken concrete surface will be carbonated and will not be stained. The inner part of concrete will not be carbonated. The boundary of pink stain will clearly show how far carbonation has penetrated into the concrete. The position of steel reinforcement at that zone is determined. If carbonation has penetrated up to the steel reinforcement and beyond, the rusting is slow. When concrete is alternatively wet and dry, the steel starts rusting rapidly. In case of salty environment, the change of alkalinity and the presence of chloride fasten the rusting of steel. Measuring the depth of carbonation into the concrete is a test, which can give warning of rusting before serious damage will occur. A rainbow indicator gives the value of pH.

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## Ph RANGE OF CONCRETE WITH RESPECT TO COLOUR

Sr.No	Colour	pH
	Orange	5-6
	Yellow	7-8
	Green	9-10
	Violet	11-12
	Dark Blue	13

## H. HALF CELL POTENTIAL METER TEST

Potential test i.e., The half-cell potential test, is used to determine the probability of corrosion within the rebar in reinforced concrete structures. This blog dives into the specifics of concrete corrosion, the half cell potential technique for testing concrete corrosion, and the ways in which the data from the half-cell interpreted. The tests were conducted using “UT33D” (HALF CELL POTENTIAL Digital Tester) equipment from M/s. UNI-T. as per the guidelines in ASTM C876

**Table 1 : Half Cell Potential Corresponding to Percentage Chance of Corrosion Activity**

Half-cell potential (mv) relative to Cu-Cu sulphate Ref. Electrode	% chance of corrosion activity
Less than -200	10%
Between -200 to -350	50% (uncertain)
Above -350	90%

## I. COVER METER TEST

A Cover Meter, or Rebar locator, is a gauge that measures the thickness of concrete cover over steel reinforcement bars and metal pipes. The cover meter can tell you the depth of the rebar, the location and orientation of reinforcement bar (rebar) and determine the diameter of the rebar.

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## J. RESULT OF TEST

**Test Method for UPVT** : Direct

**Test Method for RHT** : Horizontal

**Technical reference** :

1. Indian Standard IS: 13311 (Part-1): 2018, Method of Non Destructive Testing of Concrete, Part-1, Ultrasonic Pulse Velocity.
2. Instrumental Manual Furnished By Proceq SA Switzerland.
3. Indian Standard IS: 13311 (Part-2): 2018, Method of Non Destructive Testing of Concrete, Part-2, Rebound Hammer.
4. Indian Standard IS: 516: 1959 (RA: 2018), Method of Test for Strength of Concrete.
5. Indian Standard IS: 13311 (Part-5/Sec2): 2018
6. Instrumental Manual Furnished By Proceq SA Switzerland.
7. Indian Standard IS: 516-1959, Methods of Test for Strength of Concrete.
8. Indian Standard IS: 1199-1959, Method of Sampling and Analysis of Concrete

<b>No. of Testing</b>	<b>: Rebound Hammer</b>	<b>: 210 No's on Columns &amp; Beams</b>
	<b>UPVT</b>	<b>: 210 No's on Columns&amp; Beams</b>
	<b>CORE</b>	<b>: 55 No's on Beams &amp; SLAB</b>
	<b>Half cell</b>	<b>: 109 No's on Columns, Beams &amp; SLAB</b>
	<b>Carbonation</b>	<b>: 109 No's on Columns, Beams &amp; SLAB</b>
	<b>Cover Meter</b>	<b>: 109 No's on Columns &amp; Beams</b>

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**J.1. ULTRA PULSE VELOCITY TEST**

**TULIP BUILDING**

TULIP BUILDING TEST LOCATION	UPVT TEST READING									
BASEMENT COLUMN (B C-18)	2.73   2.807   2.518   2.649   2.609   2.6   2.233   2.526   2.482   2.664									
	<b>Average "T1" :</b> 2.582									
GROUND FLOOR COLUMN (GF C-15)	4.335   4.287   4.34   4.231   4.308   4.277   4.394   4.319   4.319   4.345									
	<b>Average "T1" :</b> 4.316									
FIRST FLOOR COLUMN (F1 C-34)	3.504   3.683   3.679   3.706   3.777   3.793   3.793   3.773   3.683   3.741									
	<b>Average "T1" :</b> 3.713									
SECOND FLOOR COLUMN (F2 C-29)	3.258   3.412   3.596   3.455   3.455   3.523   3.435   3.499   3.435   3.343									
	<b>Average "T1" :</b> 3.441									
THIRD FLOOR COLUMN (F3 C-57)	3.057   3.119   3.311   3.483   3.568   3.277   3.314   3.49   3.627   3.676									
	<b>Average "T1" :</b> 3.392									
FOURTH FLOOR COLUMN (F4 C-78)	3.111   3.244   3.188   3.265   3.244   3.408   3.418   3.469   3.308   3.145									
	<b>Average "T1" :</b> 3.280									
FIFTH FLOOR COLUMN (F5 C-82)	2.2768   2.979   3.128   4.076   3.138   3.125   2.915   3.033   3.359   3.178									
	<b>Average "T1" :</b> 3.121									
SIXTH FLOOR COLUMN (F6 C-68)	2.979   3.197   3.261   3.392   3.382   3.353   3.33   3.453   3.249   3.45									
	<b>Average "T1" :</b> 3.305									
SEVENTH FLOOR COLUMN (F7 C-95)	2.749   3.22   2.796   2.722   2.848   2.838   2.934   2.896   2.692   2.901									
	<b>Average "T1" :</b> 2.820									



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TULIP BUILDING TEST LOCATION	UPVT TEST READING										
EIGHT FLOOR COLUMN (F8 C-86)	3.898	3.945	3.898	3.952	3.866	4	3.898	3.866	3.952	3.846	
	Average "T1" : 3.912										
NINTH FLOOR COLUMN (F9 C-96)	3.642	3.915	3.566	3.624	3.56	3.554	3.379	3.432	3.476	3.385	
	Average "T1" : 3.553										
TENTH FLOOR COLUMN (F10 C-99)	3.027	3.196	3.189	3.199	3.246	3.216	3.1	3.173	3.141	3.039	
	Average "T1" : 3.153										
ELEVENTH FLOOR COLUMN (F11 C107)	3.278	2.689	2.975	3.333	3.249	3.35	3.408	3.291	3.323	3.307	
	Average "T1" : 3.220										
TWELFTH FLOOR COLUMN (F12 C-56)	4.003	4.181	4.066	4.073	4.059	4.123	4.211	4.101	4.288	4.137	
	Average "T1" : 4.124										
THIRTEENTH FLOOR COLUMN (F13 C-47)	3.814	3.788	3.532	3.689	3.612	3.647	3.617	3.566	3.446	3.641	
	Average "T1" : 3.635										
FOURTEENTH FLOOR COLUMN (F14 C-13)	3.212	3.086	3.147	3.774	3.673	3.716	3.774	3.654	3.537	3.514	
	Average "T1" : 3.509										

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TULIP BUILDING TEST LOCATION	UPVT TEST READING										
	2.336	4.003	3.884	4.094	4.038	3.963	4.003	3.396	3.917	3.943	
BASEMENT BEAM-(B B1)	Average "T1" : 3.758										
	3.982	3.812	3.801	3.927	4.075	4.107	4.14	4.18	4.312	4.377	
GROUND FLOOR BEAM (GF B2)	Average "T1" : 4.071										
	2.593	2.722	2.679	2.74	2.669	2.822	2.742	2.593	2.555	2.876	
FIRST FLOOR BEAM (F1 B3)	Average "T1" : 2.699										
	2.619	2.989	2.941	3.262	3.289	2.886	2.927	2.829	2.816	2.841	
SECOND FLOOR BEAM (F2 B4)	Average "T1" : 2.940										
	3.129	3.387	3.274	3.205	3.132	3.179	3.093	2.786	3.104	3.045	
THIRD FLOOR BEAM (F3 B5)	Average "T1" : 3.133										
	2.74	2.69	2.911	2.843	2.759	2.941	2.703	2.896	2.985	3.097	
FOURTH FLOOR BEAM (F4 B6)	Average "T1" : 2.857										
	3.235	3.338	3.376	2.938	3.593	3.664	3.587	3.556	3.191	3.659	
FIFTH FLOOR BEAM (F5 B7)	Average "T1" : 3.414										
	3.329	3.413	3.325	3.337	3.285	3.321	3.434	3.383	3.413	3.317	
SIXTH FLOOR BEAM (F6 B8)	Average "T1" : 3.356										
	2.551	2.772	2.784	2.831	2.89	2.551	2.862	2.819	2.314	2.784	
SEVENTH FLOOR BEAM (F7 B9)	Average "T1" : 2.716										

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TULIP BUILDING TEST LOCATION	UPVT TEST READING									
EIGHT FLOOR BEAM (F8 B10)	3.639	3.657	3.668	3.752	3.698	3.474	3.746	3.789	3.628	3.789
	Average "T1" : 3.684									
NINTH FLOOR BEAM (F9 B11)	3.78	3.909	3.865	3.846	3.762	4.124	3.738	3.744	3.89	3.828
	Average "T1" : 3.849									
TENTH FLOOR BEAM (F10 B12)	3.363	3.372	3.402	3.506	3.443	3.412	3.423	3.594	3.464	3.628
	Average "T1" : 3.461									
ELEVENTH FLOOR BEAM (F11 B13)	3.896	3.846	3.774	3.785	3.647	3.84	3.859	3.89	3.877	3.366
	Average "T1" : 3.778									
TWELVETH FLOOR BEAM (F12 B14)	3.852	3.76	3.604	3.707	3.577	3.638	3.678	3.865	3.79	3.827
	Average "T1" : 3.730									
THIRTEENTH FLOOR BEAM (F13 B15)	3.577	3.704	3.71	3.698	3.566	3.853	3.789	3.879	3.789	3.758
	Average "T1" : 3.732									
FOURTEENTH FLOOR BEAM (F14 B16)	2.949	3.142	3.108	3.193	3.193	3.268	3.237	3.25	3.282	3.246
	Average "T1" : 3.187									

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## IRIS BUILDING

IRIS BUILDING TEST LOCATION	UPVT TEST READING										
BASEMENT COLUMN (B C-19)	4.257 3.97 4.08 3.997 4.242 4.159 4.024 4.08 4.024 4.01 <b>Average "T1" :</b> 4.084										
GROUND FLOOR COLUMN (GF C-7)	4.06 4.065 4.014 4.127 4.084 4.037 4.056 4.202 4.056 4.028 <b>Average "T1" :</b> 4.073										
FIRST FLOOR COLUMN (F1 C-20)	3.267 3.485 3.406 3.526 3.837 3.828 3.933 4.115 4.577 4.465 <b>Average "T1" :</b> 3.844										
SECOND FLOOR COLUMN (F2 C-73)	3.677 3.556 3.468 3.522 3.571 3.568 3.605 3.618 3.545 3.49 <b>Average "T1" :</b> 3.562										
THIRD FLOOR COLUMN (F3 C-47)	3.024 2.528 3.095 3.425 3.469 3.273 3.257 3.299 3.257 3.27 <b>Average "T1" :</b> 3.190										
FOURTH FLOOR COLUMN (F4 C-60)	2.795 2.949 2.961 2.679 2.963 2.919 2.769 2.981 3.071 3.12 <b>Average "T1" :</b> 2.921										
FIFTH FLOOR COLUMN (F5 C-67)	3.351 3.441 3.495 3.407 3.507 3.551 3.452 3.456 3.284 3.366 <b>Average "T1" :</b> 3.431										
SIXTH FLOOR COLUMN (F6 C-70)	3.3 3.348 3.417 3.492 3.405 3.386 3.538 3.484 3.398 3.452 <b>Average "T1" :</b> 3.422										
SEVENTH FLOOR COLUMN (F7 C-51)	3.3 3.88 3.213 3.33 3.274 3.441 3.529 3.499 3.395 3.441 <b>Average "T1" :</b> 3.430										
EIGHT FLOOR COLUMN (F8 C-49)	2.801 2.668 3.639 3.571 2.833 3.428 3.003 3.925 3.668 3.827 <b>Average "T1" :</b> 3.336										
NINTH FLOOR COLUMN (F9 C-31)	3.267 3.533 3.605 3.553 3.48 3.528 3.599 3.577 3.633 3.453 <b>Average "T1" :</b> 3.523										

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TENTH FLOOR COLUMN (F10 C-36)	3.208	3.244	3.221	3.211	3.33	3.312	3.34	3.369	3.42	3.523
<b>Average "T1" :</b>										3.318
ELEVENTH FLOOR COLUMN (F11 C-25)	3.69	3.995	3.851	3.764	3.699	3.968	3.797	4.138	4.298	3.736
<b>Average "T1" :</b>										3.894
TWELFTH FLOOR COLUMN (F12 C-9)	3.548	3.595	3.438	3.274	3.338	3.25	3.269	3.313	3.39	3.624
<b>Average "T1" :</b>										3.404
THIRTEENTH FLOOR COLUMN (F13 C26)	3.56	3.503	4.264	3.642	3.537	4.314	4.037	3.774	3.624	3.673
<b>Average "T1" :</b>										3.793
FOURTEENTH FLOOR COLUMN (F14 C-12)	3.433	3.1	3.499	3.37	3.254	3.463	3.293	3.104	3.216	3.231
<b>Average "T1" :</b>										3.296

IRIS BUILDING TEST LOCATION	UPVT TEST READING									
BASEMENT BEAM (B B-1)	4.089	4.309	4.24	4.27	4.412	4.364	4.293	4.124	4.348	4.124
<b>Average "T1" :</b>										4.257
GROUND FLOOR BEAM (GF B-2)	4.089	4.159	4.151	4.27	4.453	4.332	4.278	4.38	4.24	4.478
<b>Average "T1" :</b>										4.283
FIRST FLOOR BEAM (F1 B-3)	3.694	3.525	3.605	3.714	3.479	3.619	3.47	3.457	3.557	3.493
<b>Average "T1" :</b>										3.561
SECOND FLOOR BEAM (F2 B-4)	2.973	3.041	3.141	3.087	3.112	3.184	3.144	3.103	3.214	3.29
<b>Average "T1" :</b>										3.129
THIRD FLOOR BEAM (F3 B-5)	3.405	3.337	3.383	3.418	3.277	3.363	3.47	3.396	3.409	3.373
<b>Average "T1" :</b>										3.383

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FOURTH FLOOR BEAM (F4 B-6)	2.938	2.112	2.881	2.893	2.848	2.905	2.954	2.875	2.926	2.875
	<b>Average "T1" :</b> 2.821									
FIFTH FLOOR BEAM (F5 B-7)	3.816	3.729	3.763	3.729	3.81	3.729	3.624	3.673	3.619	3.556
	<b>Average "T1" :</b> 3.705									
SIXTH FLOOR BEAM (F6 B-8)	3.146	3.177	3.367	3.253	3.177	3.108	3.155	3.221	3.208	3.194
	<b>Average "T1" :</b> 3.201									
SEVENTH FLOOR BEAM (F7 B-9)	3.089	3.288	3.499	3.376	3.137	3.085	3.443	3.357	3.235	3.324
	<b>Average "T1" :</b> 3.283									
EIGHT FLOOR BEAM (F8 B-10)	2.278	3.466	3.391	3.264	3.189	3.348	3.287	3.296	3.154	3.219
	<b>Average "T1" :</b> 3.189									
NINTH FLOOR BEAM (F9 B-11)	3.497	4.204	3.561	3.615	3.55	3.66	3.582	3.599	3.632	3.655
	<b>Average "T1" :</b> 3.656									
TENTH FLOOR BEAM (F10 B-12)	3.772	3.718	3.707	3.712	3.599	3.599	3.748	3.471	3.632	3.441
	<b>Average "T1" :</b> 3.640									
ELEVENTH FLOOR BEAM (F11 B-13)	3.577	3.571	3.587	3.704	3.75	3.727	3.791	3.797	3.721	3.928
	<b>Average "T1" :</b> 3.715									
TWELFTH FLOOR BEAM (F12 B-14)	3.55	3.539	3.539	3.41	3.481	3.695	3.712	3.593	3.487	3.451
	<b>Average "T1" :</b> 3.546									
THIRTEENTH FLOOR BEAM (F13 B-15)	3.593	3.638	3.632	3.411	3.615	3.401	3.451	3.386	3.391	3.446
	<b>Average "T1" :</b> 3.496									
THIRTEENTH FLOOR BEAM (F14 B-16)	4.1	4.16	3.789	4.174	3.872	3.952	3.859	3.71	3.764	3.797
	<b>Average "T1" :</b> 3.918									

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## CASPIA BUILDING

CASPIA BUILDING TEST LOCATION	UPVT TEST READING									
BASEMENT COLUMN (B C-69)	3.776	3.748	4.139	3.743	3.759	3.561	3.817	4.333	3.776	3.788
	Average "T1" : 3.844									
GROUND FLOOR COLUMN (GF C-74)	4.087	3.84	3.943	4.024	4.024	4.101	3.963	3.97	4.174	4.108
	Average "T1" : 4.023									
FIRST FLOOR COLUMN (F1 C-80)	3.679	3.633	3.675	3.74	3.679	3.693	3.647	3.561	3.605	3.711
	Average "T1" : 3.662									
SECOND FLOOR COLUMN (F2 C-53)	2.355	2.535	2.538	2.742	2.749	2.722	2.698	2.859	2.859	2.829
	Average "T1" : 2.689									
THIRD FLOOR COLUMN (F3 C-58)	2.9	3.062	3.253	3.117	3.125	3.25	3.271	3.259	3.25	3.362
	Average "T1" : 3.185									
FOURTH FLOOR COLUMN (F4 C-12)	3.289	3.337	3.311	3.219	3.398	3.229	2.927	3.148	3.175	3.571
	Average "T1" : 3.260									
FIFTH FLOOR COLUMN (F5 C-21)	2.633	2.561	2.581	3.437	2.724	3.858	2.74	3.489	2.558	3.456
	Average "T1" : 3.004									
SIXTH FLOOR COLUMN (F6 C-30)	3.023	3.03	3.081	3.261	3.255	3.343	3.396	3.255	3.39	3.349
	Average "T1" : 3.238									
SEVENTH FLOOR COLUMN (F7 C-37)	3.472	3.743	3.613	3.575	3.599	3.304	3.592	3.578	3.534	3.518
	Average "T1" : 3.553									
EIGHT FLOOR COLUMN (F8 C-18)	3.218	3.388	3.165	3.333	3.392	3.396	3.484	3.226	3.245	3.405
	Average "T1" : 3.325									

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NINTH FLOOR COLUMN (F9 C-33)	3.102	2.99	3.014	3.017	2.98	2.949	3.134	2.949	2.946	3.033
Average "T1" : 3.011										
TENTH FLOOR COLUMN (F10 C-8)	2.849	2.979	2.959	3.033	3.014	3.073	3.168	3.207	3.186	3.000
Average "T1" : 3.047										
ELEVENTH FLOOR COLUMN (F11 C-27)	2.998	3.036	2.927	2.831	2.925	3.193	3.03	2.989	3.007	2.911
Average "T1" : 2.985										
TWELFTH FLOOR COLUMN (F12 C-56)	3.265	3.415	3.435	3.23	3.253	3.033	3.108	3.051	3.03	3.165
Average "T1" : 3.199										
THIRTEENTH FLOOR COLUMN (F13 C-76)	3.833	3.833	3.785	3.811	3.877	3.794	3.798	3.794	3.798	3.868
Average "T1" : 3.819										
FOURTEENTH FLOOR COLUMN (F14 C-79)	2.572	2.575	2.597	2.66	2.85	2.85	2.742	2.644	2.756	2.736
Average "T1" : 2.698										
CASPIA BUILDING TEST LOCATION	UPVT TEST READING									
BASEMENT BEAM (B B-1)	3.912	3.828	3.858	4.026	4.013	4.125	3.864	3.506	3.858	3.075
Average "T1" : 3.807										
GROUND FLOOR BEAM (GF B-2)	3.704	3.734	3.821	3.704	3.783	3.704	3.795	3.885	4.085	3.972
Average "T1" : 3.819										
FIRST FLOOR BEAM (F1 B-3)	3.42	3.42	3.428	3.452	3.554	2.977	3.021	2.993	3.169	3.24
Average "T1" : 3.267										
SECOND FLOOR BEAM (F2 B-4)	2.854	2.874	2.786	2.658	3.059	2.723	2.68	2.522	2.451	2.194
Average "T1" : 2.680										

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	3.061	2.655	3.297	2.922	3.01	3.079	2.944	3.079	2.647	2.913
THIRD FLOOR BEAM (F3 B-5)	<b>Average "T1" :</b> 2.961									
	3.476	3.567	3.222	3.581	3.426	3.945	2.958	3.266	3.23	3.275
FOURTH FLOOR BEAM (F4 B-6)	<b>Average "T1" :</b> 3.395									
	3.218	3.309	3.418	3.511	3.439	3.448	3.362	3.21	3.466	3.484
FIFTH FLOOR BEAM (F5 B-7)	<b>Average "T1" :</b> 3.387									
	2.873	2.746	2.684	2.592	2.703	2.498	2.071	2.703	2.588	2.577
SIXTH FLOOR BEAM (F6 B-8)	<b>Average "T1" :</b> 2.604									
	2.971	2.98	2.901	2.968	2.962	3.004	2.906	2.986	3.06	2.938
SEVENTH FLOOR BEAM (F7 B-9)	<b>Average "T1" :</b> 2.968									
	2.841	2.74	3.033	3.036	2.967	2.817	3.006	2.935	3.018	3.08
EIGHT FLOOR BEAM (F8 B-10)	<b>Average "T1" :</b> 2.947									
	3.099	3.206	3.178	3.07	3.125	3.034	3.148	2.921	2.876	2.902
NINTH FLOOR BEAM (F9 B-11)	<b>Average "T1" :</b> 3.056									
	3.153	3.027	3.043	2.911	3.05	3.04	3.07	3.175	3.248	3.128
TENTH FLOOR BEAM (F10 B-12)	<b>Average "T1" :</b> 3.077									
	3.333	3.128	3.201	3.24	3.187	3.037	3.098	3.043	3.062	2.897
ELEVENTH FLOOR BEAM (F11 B-13)	<b>Average "T1" :</b> 3.123									

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TWELVETH FLOOR BEAM (F12 B-14)	3.33	<b>3.333</b>	3.408	3.269	3.204	3.19	3.384	3.215	3.132	3.122
	<b>Average "T1" :</b> 3.259									
THIRTEENTH FLOOR BEAM (F13 B-15)	3.333	<b>3.276</b>	3.252	3.264	3.284	3.304	3.204	3.2	3.228	3.144
	<b>Average "T1" :</b> 3.249									
FOURTEENTH FLOOR BEAM (F14 B-16)	2.977	<b>3.132</b>	3.072	2.772	3	2.903	3.14	3.082	3	2.833
	<b>Average "T1" :</b> 2.991									

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## BEETEL BUILDING

BEETEL BUILDING TEST LOCATION	UPVT TEST READING										
	4	4.206	3.888	4.143	3.526	4.291	3.987	4.332	4.439	4.332	
BASEMENT COLUMN (B C-19)	Average "T1" : 4.114										
GROUND FLOOR COLUMN (B C-75)	2.945	2.647	3.267	3.096	3.295	3.249	3.172	3.038	2.953	3.03	
FIRST FLOOR COLUMN (F1 C-109)	3.743	3.608	3.715	3.682	3.546	3.613	3.587	3.487	3.369	3.347	
SECOND FLOOR COLUMN (F2 C-100)	2.943	2.986	3.234	3.012	3.138	3.314	3.261	3.294	3.218	3.336	
THIRD FLOOR COLUMN (F3 C-84)	3.473	3.534	3.571	3.613	3.586	3.606	3.586	3.757	3.795	3.922	
FOURTH FLOOR COLUMN (F4 C-63)	3.279	3.29	3.201	3.185	3.304	3.342	3.402	3.245	3.143	3.143	
FIFTH FLOOR COLUMN (F5 C-89)	3.122	3.348	3.271	3.923	3.402	3.298	3.231	3.344	3.58	3.247	
SIXTH FLOOR COLUMN (F6 C-76)	3.043	3.175	3.237	3.314	3.307	3.243	3.125	3.418	3.415	3.594	
SEVENTH FLOOR COLUMN (F6 C-90)	3.23	3.194	3.23	3.252	3.278	3.24	3.206	3.11	3.304	3.19	
EIGHT FLOOR COLUMN (F8 C-55)	2.795	2.453	3.131	2.977	2.883	2.835	2.627	2.495	2.244	2.361	
	Average "T1" : 2.680										



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BEETEL BUILDING TEST LOCATION	UPVT TEST READING									
NINTH FLOOR COLUMN (F9 C-46)	2.938	3.151	3.136	3.722	3.711	3.675	3.17	3.185	3.162	3.067
	Average "T1" : 3.292									
TENTH FLOOR COLUMN (F10 C-21)	2.485	2.74	2.833	2.868	2.871	2.841	2.894	2.738	2.699	2.466
	Average "T1" : 2.744									
ELEVENTH FLOOR COLUMN (F11 C-35)	4.861	4.679	5.014	5.036	5.022	5.132	5.043	5.512	4.157	4.217
	Average "T1" : 4.867									
TWELVETH FLOOR COLUMN (F12 C-108)	3.261	3.85	3.459	3.68	3.622	3.638	3.659	3.704	3.763	3.78
	Average "T1" : 3.642									
THIRTEENTH FLOOR COLUMN (F13 C-26)	3.756	3.664	3.756	3.628	3.656	3.673	3.807	3.852	3.879	3.91
	Average "T1" : 3.758									
FOURTEENTH FLOOR COLUMN (F14 C-13)	4.582	4.656	4.582	4.675	4.637	4.694	4.528	4.723	4.563	4.432
	Average "T1" : 4.607									

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BEETEL BUILDING TEST LOCATION	UPVT TEST READING									
	3.884	4.087	4.257	4.344	4.145	4.493	4.519	4.528	4.599	4.468
BASEMENT BEAM (B B-1)	Average "T1" : 4.332									
	3.566	4.196	4.047	4.007	5.103	3.877	3.213	3.261	3.361	2.895
GROUND FLOOR BEAM (GF B-2)	Average "T1" : 3.753									
	3.824	3.863	3.714	3.763	3.596	3.557	3.412	3.481	3.746	3.518
FIRST FLOOR BEAM (F1 B-3)	Average "T1" : 3.647									
	3.262	3.208	3.219	3.384	3.303	3.42	3.58	3.532	3.498	3.55
SECOND FLOOR BEAM (F2 B-4)	Average "T1" : 3.396									
	3.358	3.616	3.296	3.262	3.302	3.184	3.194	3.137	3.236	3.181
THIRD FLOOR BEAM (F3 B-5)	Average "T1" : 3.277									
	3.228	3.16	3.365	3.276	3.31	3.314	3.293	3.224	3.181	3.268
FOURTH FLOOR BEAM (F4 B-6)	Average "T1" : 3.262									
	3.173	2.98	3.093	2.781	2.961	2.28	3.041	3.297	3.241	3.093
FIFTH FLOOR BEAM (F5 B-7)	Average "T1" : 2.994									
	3.75	3.902	3.896	3.715	3.361	3.239	3.292	3.483	3.458	3.498
SIXTH FLOOR BEAM (F6 B-8)	Average "T1" : 3.559									
	3.099	2.971	2.856	3.049	3.064	2.978	2.984	3.005	3.067	2.868
SEVENTH FLOOR BEAM (F7 B-9)	Average "T1" : 2.994									

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EIGHT FLOOR BEAM (F8 B-10)	3.47	3.466	3.309	3.184	2.967	3.044	2.833	3.051	3.065	2.845
	<b>Average "T1" :</b> 3.123									
NINTH FLOOR BEAM (F9 B-11)	2.815	2.709	2.436	2.884	2.864	2.884	2.206	2.915	2.731	2.752
	<b>Average "T1" :</b> 2.720									
TENTH FLOOR BEAM (F10 B-12)	2.708	2.761	2.719	2.437	2.457	2.559	2.596	2.634	2.562	2.584
<b>Average "T1" :</b> 2.602										
ELEVENTH FLOOR BEAM (F11 B-13)	3.796	3.768	3.601	3.73	3.616	3.571	3.542	3.321	3.299	3.321
	<b>Average "T1" :</b> 3.557									
TWELVETH FLOOR BEAM (F12 B-14)	3.499	3.693	3.601	3.785	3.725	3.72	3.547	3.647	3.312	3.19
	<b>Average "T1" :</b> 3.572									
THIRTEENTH FLOOR BEAM (F13 B-15)	3.391	3.351	3.542	3.216	3.346	3.24	3.24	3.195	2.918	3.054
	<b>Average "T1" :</b> 3.249									
FOURTEENTH FLOOR BEAM (F14 B-16)	4.444	4.38	4.309	4.263	4.396	4.317	4.38	4.225	4.203	4.218
	<b>Average "T1" :</b> 4.314									

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## LOTUS BUILDING

LOTUS BUILDING TEST LOCATION	UPVT TEST READING									
	3.859	3.85	4.302	4.498	4.351	4.291	4.162	4.078	4.117	4.238
BASEMENT COLUMN (B C-33)	Average "T1" : 4.175									
	3.931	3.981	3.972	3.967	4.038	4.028	3.816	3.842	3.807	4.126
GROUND FLOOR COLUMN (GF C-42)	Average "T1" : 3.951									
	4.694	4.646	4.545	4.44	4.348	4.432	4.415	4.356	4.457	4.528
FIRST FLOOR COLUMN (F1 C-12)	Average "T1" : 4.486									
	3.698	3.662	3.657	3.622	3.686	3.538	3.594	3.674	3.758	3.853
SECOND FLOOR COLUMN (F2 C-22)	Average "T1" : 3.674									
	3.918	3.867	4.043	4.147	3.867	3.931	4.011	3.85	3.931	4.002
THIRD FLOOR COLUMN (F3 C-5)	Average "T1" : 3.957									
	3.746	3.734	3.633	3.639	3.594	3.599	3.722	3.789	3.692	3.853
FOURTH FLOOR COLUMN (F4 C-9)	Average "T1" : 3.700									
	4.217	3.894	4.054	4.263	3.952	4.223	4.059	4.268	4.189	4.217
FIFTH FLOOR COLUMN (F5 C-27)	Average "T1" : 4.134									
	3.388	3.511	3.472	3.102	3.566	3.482	3.556	3.666	3.698	3.698
SIXTH FLOOR COLUMN (F6 C-32)	Average "T1" : 3.514									
	4.111	4.146	4.208	4.239	4.121	4.028	3.972	3.977	3.881	3.963
SEVENTH FLOOR COLUMN (F7 C-51)	Average "T1" : 4.065									
	3.594	3.382	3.31	3.237	3.357	3.684	3.622	3.651	3.636	3.604
EIGHT FLOOR COLUMN (F8 C-60)	Average "T1" : 3.508									



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NINTH FLOOR COLUMN (F9 C-70)	2.911	2.857	2.754	2.684	2.761	2.975	2.805	2.719	2.7	2.605
	<b>Average "T1" :</b> 2.777									
TENTH FLOOR COLUMN (F10 C-45)	3.344	3.37	3.507	3.664	3.626	3.69	3.621	3.785	3.827	3.799
	<b>Average "T1" :</b> 3.623									
ELEVENTH FLOOR COLUMN (F11 C-63)	2.813	2.794	2.69	2.746	2.807	2.838	2.938	3.098	3.18	2.726
	<b>Average "T1" :</b> 2.863									
TWELFTH FLOOR COLUMN (F12 C-55)	3.558	3.535	3.507	3.676	3.563	3.481	3.396	3.299	3.477	3.326
	<b>Average "T1" :</b> 3.482									
THIRTEENTH FLOOR COLUMN (F13 C54)	4.013	4.003	3.977	3.946	3.905	3.941	3.861	3.803	3.789	4.37
	<b>Average "T1" :</b> 3.961									
FOURTEENTH FLOOR COLUMN (F14 C61)	4.451	4.519	4.451	4.296	4.281	4.288	4.281	4.328	4.159	5.39
	<b>Average "T1" :</b> 4.444									

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LOTUS BUILDING TEST LOCATION	UPVT TEST READING									
	4.152	4.181	4.219	4.052	4.031	4.174	4.045	4.167	4.219	4.059
BASEMENT BEAM- (B B-1)	Average "T1" : 4.130									
	3.599	3.66	3.809	3.683	3.754	6.395	3.712	3.632	3.784	3.803
GROUND FLOOR BEAM (GF B-2)	Average "T1" : 3.983									
	4.672	4.572	4.617	4.59	4.599	4.663	4.728	4.64	4.691	4.528
FIRST FLOOR BEAM (F1 B-3)	Average "T1" : 4.630									
	3.733	3.915	3.883	3.733	3.614	3.715	3.797	3.797	3.902	3.738
SECOND FLOOR BEAM (F2 B-4)	Average "T1" : 3.783									
	3.556	3.463	3.488	3.566	3.463	3.438	3.509	3.483	3.519	3.488
THIRD FLOOR BEAM (F3 B-5)	Average "T1" : 3.497									
	3.877	3.846	3.928	3.834	3.636	3.762	3.774	3.625	3.631	3.791
FOURTH FLOOR BEAM (F4 B-6)	Average "T1" : 3.770									
	3.537	3.591	3.385	3.342	3.218	3.528	3.621	3.596	3.523	3.714
FIFTH FLOOR BEAM (F5 B-7)	Average "T1" : 3.506									
	4.124	4.124	4.145	4.678	3.915	4.068	4.138	4.02	4.007	4.117
SIXTH FLOOR BEAM (F6 B-8)	Average "T1" : 4.134									
	3.754	3.748	3.66	3.737	3.608	3.602	3.882	3.541	3.704	3.956
SEVENTH FLOOR BEAM (F7 B-9)	Average "T1" : 3.719									

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EIGHT FLOOR BEAM (F8 B-10)	2.771	3.38	3.154	3.54	3.493	3.315	3.343	3.571	3.315	2.606
	<b>Average "T1" :</b> 3.249									
NINTH FLOOR BEAM (F9 B-11)	3.174	3.456	3.275	3.389	2.991	3.662	3.566	3.271	3.398	3.412
	<b>Average "T1" :</b> 3.359									
TENTH FLOOR BEAM (F10 B-12)	3.433	3.23	3.33	3.297	3.046	2.934	3.057	3.125	3.17	2.85
	<b>Average "T1" :</b> 3.115									
ELEVENTH FLOOR BEAM (F11 B-13)	3.709	3.566	3.571	3.692	3.642	4.02	3.954	3.797	3.535	3.681
	<b>Average "T1" :</b> 3.717									
TWELVETH FLOOR BEAM (F12 B-14)	4.217	4.438	4.188	4.231	4.16	4.174	4.174	4.239	4.195	4.224
	<b>Average "T1" :</b> 4.224									
THIRTEENTH FLOOR BEAM (F13 B-15)	4.093	3.966	4.228	4.152	4.251	4.364	4.44	4.449	4.528	4.545
	<b>Average "T1" :</b> 4.302									
FOURTEENTH FLOOR BEAM (F14 B-16)	3.963	4.181	4.312	4.227	4.066	4.038	4.281	4.167	4.174	4.059
	<b>Average "T1" :</b> 4.147									

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## ORCHID BUILDING

ORCHID BUILDING TEST LOCATION	UPVT TEST READING										
	4.043	4.085	4.186	4.176	4.176	4.142	4.361	2.683	2.191	4.025	
BASEMENT COLUMN (B C-45)	<b>Average "T1" :</b> 3.807										
	4.174	4.196	4.227	4.196	4.25	4.265	4.288	4.417	4.328	4.211	
GROUND FLOOR COLUMN (GF C-27 )	<b>Average "T1" :</b> 4.255										
	4.946	5.112	4.893	4.85	4.928	5.074	5.131	4.833	4.774	4.599	
FIRST FLOOR COLUMN (F1 C-13)	4.914										
	4.274	4.375	4.359	4.232	4.018	4.342	4.359	4.326	4.197	4.348	
SECOND FLOOR COLUMN (F2 C-9 )	<b>Average "T1" :</b> 4.283										
	4.428	4.348	4.255	4.263	4.263	3.642	4.167	4.089	4.11	4.225	
THIRD FLOOR COLUMN (F3 C-34)	<b>Average "T1" :</b> 4.179										
	3.594	4.131	4.156	3.941	4.167	4.209	4.026	3.96	3.918	3.941	
FOURTH FLOOR COLUMN (F4 C-31)	<b>Average "T1" :</b> 4.004										
	4.059	4.66	4.437	4.381	4.766	4.412	4.612	4.565	4.632	4.128	
FIFTH FLOOR COLUMN (F5 C-26)	<b>Average "T1" :</b> 4.465										
	4.026	4.122	4.084	4.252	4.448	4.079	4.161	4.318	4	3.841	
SIXTH FLOOR COLUMN (F6 C-28)	<b>Average "T1" :</b> 4.133										
	4.207	4.258	4.248	4.227	4.274	4.162	4.253	4.137	4.098	4.284	
SEVENTH FLOOR COLUMN (F7 C-48)	<b>Average "T1" :</b> 4.215										
	3.068	3.086	3.751	3.6	3.285	3.272	3.013	3.819	3.452	3.313	
EIGHTH FLOOR COLUMN (F8 C-53)	<b>Average "T1" :</b> 3.366										

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NINTH FLOOR COLUMN (F9 C-65)	3.721	3.698	3.75	3.642	3.715	3.698	3.62	3.659	3.571	3.664
	<b>Average "T1" :</b> 3.674									
TENTH FLOOR COLUMN (F10 C-14)	3.279	3.344	3.21	3.223	3.279	3.21	3.471	3.452	3.39	3.361
	<b>Average "T1" :</b> 3.322									
ELEVENTH FLOOR COLUMN (F11 C-66)	3.524	3.625	3.852	3.909	3.967	3.785	4.013	3.274	3.816	3.803
	<b>Average "T1" :</b> 3.757									
TWELVETH FLOOR COLUMN (F12 C-67)	3.488	3.659	3.698	4.152	3.947	3.915	2.92	3.698	4.02	4.075
	<b>Average "T1" :</b> 3.757									
THIRTEENTH FLOOR COLUMN (F13 C-63)	4.021	3.814	3.802	3.885	3.74	3.746	3.827	3.764	3.657	3.533
	<b>Average "T1" :</b> 3.779									
FOURTEENTH FLOOR COLUMN (F14 C-70)	2.296	3.525	3.02	2.66	3.24	3.241	3.29	3.639	3.488	3.557
	<b>Average "T1" :</b> 3.196									

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ORCHID BUILDING TEST LOCATION	UPVT TEST READING									
	4.085	4.167	4.078	4	4.007	4.152	3.972	3.986	3.979	3.966
BASEMENT BEAM (B B-1)	Average "T1" : 4.039									
	4.376	4.25	4.384	4.281	4.344	4.352	4.511	4.204	4.167	4.204
GROUND FLOOR BEAM (GF B-2)	Average "T1" : 4.307									
	4.6	4.745	4.796	4.696	4.847	4.53	4.523	4.306	4.655	4.688
FIRST FLOOR BEAM (F1 B-3)	Average "T1" : 4.639									
	3.682	4.098	4.247	4.098	4.252	4.03	3.852	4.513	4.409	4.146
SECOND FLOOR BEAM (F2 B-4)	Average "T1" : 4.133									
	4.181	4.38	4.396	4.469	4.332	4.372	3.96	4.42	4.188	4.332
THIRD FLOOR BEAM (F3 B-5)	Average "T1" : 4.303									
	4.044	4.05	3.372	4.075	0.994	4.063	3.528	4.235	4.248	4.235
FOURTH FLOOR BEAM (F4 B-6)	Average "T1" : 3.684									
	3.011	3.593	3.967	3.902	3.834	4.061	3.822	3.727	3.954	3.909
FIFTH FLOOR BEAM (F5 B-7)	Average "T1" : 3.778									
	3.464	3.522	3.571	3.605	3.448	3.367	3.402	3.392	3.221	3.071
SIXTH FLOOR BEAM (F6 B-8)	Average "T1" : 3.406									
	2.853	2.321	2.967	3.252	3.081	3.073	3.004	2.916	3.015	3
SEVENTH FLOOR BEAM (F7 B-9)	Average "T1" : 2.948									
	3.235	3.179	3.226	3.288	3.545	3.453	3.38	3.352	3.395	3.333
EIGHT FLOOR BEAM (F8 B-10)	Average "T1" : 3.339									

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NINTH FLOOR BEAM (F9 B-11)	3.443	3.361	2.652	3.141	3.158	3.577	3.587	3.67	3.852	3.493
	<b>Average "T1" :</b> 3.393									
TENTH FLOOR BEAM (F10 B-12)	3.191	3.235	3.306	3.17	3.162	3.324	3.073	3.315	3.288	3.404
<b>Average "T1" :</b> 3.247										
ELEVENTH FLOOR BEAM (F11 B-13)	3.412	3.418	3.235	3.571	3.464	3.423	3.286	3.459	3.522	3.438
	<b>Average "T1" :</b> 3.423									
TWELFTH FLOOR BEAM (F12 B-14)	3.276	3.387	3.392	3.164	3.203	3.448	3.453	3.276	3.343	3.024
	<b>Average "T1" :</b> 3.297									
THIRTEENTH FLOOR BEAM (F13 B-15)	3.55	3.828	3.598	3.545	3.721	3.561	3.636	3.582	3.642	3.529
	<b>Average "T1" :</b> 3.619									
FOURTEENTH FLOOR BEAM (F14 B-16)	4.009	4.351	4.402	4.281	4.22	4.359	4.454	4.33	4.247	4.461
	<b>Average "T1" :</b> 4.311									

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## ROSEWOOD BUILDING

ROSE WOOD BUILDING TEST LOCATION	UPVT TEST READING										
	3.803	3.625	3.791	3.803	4.096	3.55	3.664	4.068	3.692	3.797	
BASEMENT COLUMN (B C-114)	Average "T1" : 3.789										
FIRST FLOOR COLUMN (F1 C-42)	4.501	4.457	4.466	4.34	4.356	4.356	4.275	4.283	4.364	4.307	
THIRD FLOOR COLUMN (F3 C-86)	4.399	4.458	4.498	4.451	4.608	4.386	4.386	4.425	4.399	4.386	
ROSE WOOD BUILDING TEST LOCATION	UPVT TEST READING										
GROUND FLOOR BEAM (GF B-1)	4.493	4.59	4.672	4.608	4.608	4.635	4.608	4.599	4.511	4.644	
SECOND FLOOR BEAM (F2 B-2)	Average "T1" : 4.597										
FOURTH FLOOR BEAM (F4 B-3)	4.908	4.888	4.762	4.762	4.81	4.8	4.888	4.762	4.888	4.829	
	Average "T1" : 4.830										
	4.637	4.637	4.591	4.563	4.563	4.6	4.591	4.628	4.646	4.618	
	Average "T1" : 4.607										

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CIN: U72900DL2010PTC201133



NS-EN ISO 9001:2008/ISO 9001:2008

## **PODIUM BUILDING**

PODIUM BUILDING TEST LOCATION	UPVT TEST READING									
BASEMENT FLOOR COLUMN (B C-1)	3.75	3.725	3.728	3.83	3.686	3.591	3.552	3.629	3.51	3.486
	<b>Average "T1" :</b> 3.649									
BASEMENT FLOOR COLUMN (B C-2)	3.176	3.067	6.282	3.557	3.221	3.414	3.376	3.381	3.002	3.173
	<b>Average "T1" :</b> 3.565									
BASEMENT FLOOR BEAM (B B-1)	4.582	4.601	4.615	4.818	4.818	4.772	4.427	4.668	4.767	4.881
	<b>Average "T1" :</b> 4.695									

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## CLUB BUILDING

CLUB BUILDING TEST LOCATION	UPVT TEST READING										
BASEMENT COLUMN (B C-5)	4.083 4.167 3.901 4.261 3.99 4.217 4.202 3.99 4.139 4.174										
	<b>Average "T1" :</b> 4.112										
BASEMENT COLUMN (B C-10)	2.245 2.12 3.687 3.704 3.453 3.545 3.524 3.675 3.871 3.687										
	<b>Average "T1" :</b> 3.351										
GROUND FLOOR COLUMN (GF C-26)	4.197 4.093 3.925 3.925 3.833 3.859 3.789 4.021 4.415 4.129										
	<b>Average "T1" :</b> 4.019										
GROUND FLOOR COLUMN (GF C-32)	4.082 4.039 4.352 4.36 4.122 4.319 4.209 4.283 4.159 4.36										
	<b>Average "T1" :</b> 4.229										
GROUND FLOOR COLUMN (GF C-29)	3.883 3.928 4.009 3.958 3.963 3.904 3.893 3.87 3.859 3.81										
	<b>Average "T1" :</b> 3.908										
SECOND FLOOR COLUMN (F2 C-8)	2.288 2.121 2.787 2.505 2.414 2.467 2.632 2.64 2.381 2.433										
	<b>Average "T1" :</b> 2.467										
CLUB BUILDING TEST LOCATION	UPVT TEST READING										
GROUND FLOOR BEAM (GF B-1)	3.079 3.45 3.462 3.492 3.035 3.64 2.909 2.81 2.665 2.955										
	<b>Average "T1" :</b> 3.150										
GROUND FLOOR BEAM (GF B-2)	3.834 3.987 4.138 4.138 4.11 4.11 4 4.027 4.054 4.04										
	<b>Average "T1" :</b> 4.044										

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## J.2. REBOUND HAMMER TEST

### TULIP BUILDING

TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
BASEMENT COLUMN (B C-18) FACE A	30	28	28	32	40	36	36	36	32	40	35.80
	Average "T1" : 33.8 Comp. Strength: 30.11 N/mm <sup>2</sup>										
BASEMENT COLUMN (B C-18) FACE B	40	44	44	38	40	42	40	36	40	40	29.09
	Average "T2" : 40.4 Comp. Strength: 41.49 N/mm <sup>2</sup>										
BASEMENT BEAM (B B1) FACE A	34	32	28	28	30	30	34	30	30	28	29.09
	Average "T1" : 30.4 Comp. Strength: 24.62 N/mm <sup>2</sup>										
BASEMENT BEAM (B B-1) FACE B	38	34	40	34	36	34	30	34	38	40	29.09
	Average "T2" : 35.8 Comp. Strength: 33.55 N/mm <sup>2</sup>										

TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
GROUND FLOOR COLUMN (GF C-15) FACE A	46	50	46	46	46	40	44	40	52	50	48.56
	Average "T1" : 46 Comp. Strength: 51.01 N/mm <sup>2</sup>										
GROUND FLOOR COLUMN (GF C-15) FACE B	42	40	44	46	46	44	44	42	42	40	48.41
	Average "T2" : 43 Comp. Strength: 46.10 N/mm <sup>2</sup>										
GROUND FLOOR BEAM (GF B-2) FACE A	40	48	42	42	48	38	48	50	44	40	48.41
	Average "T1" : 44 Comp. Strength: 47.57 N/mm <sup>2</sup>										
GROUND FLOOR BEAM (GF B-2) FACE B	44	42	46	50	46	42	42	44	46	46	48.41
	Average "T2" : 44.8 Comp. Strength: 49.24 N/mm <sup>2</sup>										



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TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
FIRST FLOOR COLUMN (F1 C- 34) FACE A	46 42 40 38 38 48 42 44 42 44										47.62
FIRST FLOOR COLUMN (F1 C- 34) FACE B	Average "T1" : 42.4 Comp. Strength: 45.22 N/mm <sup>2</sup>										
FIRST FLOOR BEAM (F1 B3) FACE A	42 48 44 48 46 48 42 50 42 42										31.17
FIRST FLOOR BEAM (F1 B3) FACE B	Average "T2" : 45.2 Comp. Strength: 50.01 N/mm <sup>2</sup>										
FIRST FLOOR COLUMN (F1 C- 34) FACE A	34 32 34 32 32 34 30 32 36 32										31.17
FIRST FLOOR COLUMN (F1 C- 34) FACE B	Average "T1" : 32.8 Comp. Strength: 28.64 N/mm <sup>2</sup>										
FIRST FLOOR BEAM (F1 B3) FACE A	36 36 36 36 30 33 36 36 40 40										31.17
FIRST FLOOR BEAM (F1 B3) FACE B	Average "T2" : 35.9 Comp. Strength: 33.69 N/mm <sup>2</sup>										

TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
SECOND FLOOR COLUMN (F2 C- 29) FACE A	42 42 48 42 50 38 44 42 44 36										44.24
SECOND FLOOR COLUMN (F2 C- 29) FACE B	Average "T1" : 42.8 Comp. Strength: 45.81 N/mm <sup>2</sup>										
SECOND FLOOR BEAM (F2 B-4) FACE A	38 44 40 44 44 40 42 40 40 38										41.50
SECOND FLOOR BEAM (F2 B-4) FACE B	Average "T2" : 41 Comp. Strength: 42.67 N/mm <sup>2</sup>										
SECOND FLOOR COLUMN (F2 C- 29) FACE A	48 40 42 40 36 40 38 42 40 42										41.50
SECOND FLOOR COLUMN (F2 C- 29) FACE B	Average "T1" : 40.8 Comp. Strength: 42.28 N/mm <sup>2</sup>										
SECOND FLOOR BEAM (F2 B-4) FACE A	42 40 36 40 42 38 40 44 42 36										41.50
SECOND FLOOR BEAM (F2 B-4) FACE B	Average "T2" : 40 Comp. Strength: 40.71 N/mm <sup>2</sup>										

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TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
THIRD FLOOR COLUMN (F3 C- 57) FACE A	46	48	44	50	50	52	42	48	42	40	49.35
	Average "T1" : 46.2 Comp. Strength: 52.00 N/mm <sup>2</sup>										
THIRD FLOOR COLUMN (F3 C- 57) FACE B	54	44	42	40	42	40	42	44	46	40	39.53
	Average "T2" : 43.4 Comp. Strength: 46.69 N/mm <sup>2</sup>										
THIRD FLOOR BEAM (F3 B-5) FACE A	38	32	34	38	34	34	42	34	36	40	39.53
	Average "T1" : 36.2 Comp. Strength: 34.13 N/mm <sup>2</sup>										
THIRD FLOOR BEAM (F3 B-5) FACE B	42	40	44	42	40	40	44	42	42	46	
	Average "T2" : 42.2 Comp. Strength: 44.92 N/mm <sup>2</sup>										

TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
FOURTH FLOOR COLUMN (F4 C- 78) FACE A	36	42	36	38	42	40	44	40	38	38	38.16
	Average "T1" : 39.4 Comp. Strength: 39.82 N/mm <sup>2</sup>										
FOURTH FLOOR COLUMN (F4 C- 78) FACE B	32	32	36	46	40	42	36	38	38	36	
	Average "T2" : 37.6 Comp. Strength: 36.49 N/mm <sup>2</sup>										
FOURTH FLOOR BEAM (F4 B-6) FACE A	34	32	34	36	32	34	34	36	34	32	29.38
	Average "T1" : 33.8 Comp. Strength: 30.11 N/mm <sup>2</sup>										
FOURTH FLOOR BEAM (F4 B-6) FACE B	32	32	34	32	30	36	30	36	30	36	
	Average "T2" : 32.8 Comp. Strength: 28.64 N/mm <sup>2</sup>										

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TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
FIFTH FLOOR COLUMN (F5 C-82) FACE A	34	36	34	32	32	32	32	34	34	38	30.46
	Average "T1" : 33.8 Comp. Strength: 30.11 N/mm^2										
FIFTH FLOOR COLUMN (F5 C-82) FACE B	38	32	32	34	34	36	32	32	32	40	30.46
	Average "T2" : 34.2 Comp. Strength: 30.80 N/mm^2										
FIFTH FLOOR BEAM (F5 B7) FACE A	30	32	38	34	34	32	36	34	34	38	30.31
	Average "T1" : 34.2 Comp. Strength: 30.80 N/mm^2										
FIFTH FLOOR BEAM (F5 B7) FACE B	36	30	32	36	36	34	36	30	32	34	30.31
	Average "T2" : 33.6 Comp. Strength: 29.82 N/mm^2										

TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
SIXTH FLOOR COLUMN (F6 C-68) FACE A	40	36	32	32	42	36	42	38	38	40	34.73
	Average "T1" : 37.6 Comp. Strength: 36.49 N/mm^2										
SIXTH FLOOR COLUMN (F6 C-68) FACE B	36	32	40	36	34	32	40	36	34	34	34.73
	Average "T2" : 35.4 Comp. Strength: 32.96 N/mm^2										
SIXTH FLOOR BEAM (F6 B-8) FACE A	36	34	34	32	32	36	36	40	32	38	34.63
	Average "T1" : 35 Comp. Strength: 32.37 N/mm^2										
SIXTH FLOOR BEAM (F6 B-8) FACE B	42	40	34	34	36	40	38	42	38	34	34.63
	Average "T2" : 37.8 Comp. Strength: 36.88 N/mm^2										

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TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
SEVENTH FLOOR COLUMN (F7 C-95) FACE A	32	36	30	30	28	30	32	30	28	34	24.91
	Average "T1" : 31 Comp. Strength: 25.50 N/mm^2										
SEVENTH FLOOR COLUMN (F7 C-95) FACE B	30	28	28	30	30	30	36	28	30	32	32.08
	Average "T2" : 30.2 Comp. Strength: 24.32 N/mm^2										
SEVENTH FLOOR BEAM (F7 B-9) FACE A	34	30	34	34	36	32	34	34	38	38	32.08
	Average "T1" : 34.4 Comp. Strength: 31.19 N/mm^2										
SEVENTH FLOOR BEAM (F7 B-9) FACE B	34	36	34	32	38	40	34	34	42	30	32.08
	Average "T2" : 35.4 Comp. Strength: 32.96 N/mm^2										

TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
EIGHT FLOOR COLUMN (F8 C-86) FACE A	42	42	40	46	44	42	6	42	44	42	41.74
	Average "T1" : 39 Comp. Strength: 39.24 N/mm^2										
EIGHT FLOOR COLUMN (F8 C-86) FACE B	40	40	40	44	42	42	42	44	42	42	35.29
	Average "T2" : 41.8 Comp. Strength: 44.24 N/mm^2										
EIGHT FLOOR BEAM (F8 B-10) FACE A	33	36	38	40	34	34	40	38	38	36	35.29
	Average "T1" : 36.7 Comp. Strength: 34.87 N/mm^2										
EIGHT FLOOR BEAM-(F8 B-10) FACE B	38	32	32	38	36	38	38	40	42	38	35.29
	Average "T2" : 37.2 Comp. Strength: 35.70 N/mm^2										

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TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
NINTH FLOOR COLUMN (F9 C-96) FACE A	38	40	42	38	34	40	44	38	36	40	38.46
	Average "T1" : 39 Comp. Strength: 39.24 N/mm^2										
NINTH FLOOR COLUMN (F9 C-96) FACE B	34	36	44	40	40	40	38	34	40	36	33.99
	Average "T2" : 38.2 Comp. Strength: 37.67 N/mm^2										
NINTH FLOOR BEAM (F9 B-11) FACE A	34	36	34	38	34	38	34	42	40	38	33.99
	Average "T1" : 36.8 Comp. Strength: 35.02 N/mm^2										
NINTH FLOOR BEAM (F9 B-11) FACE B	34	28	30	34	38	42	40	34	36	38	33.99
	Average "T2" : 35.4 Comp. Strength: 32.96 N/mm^2										

TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
TENTH FLOOR COLUMN (F10 C99) FACE A	32	36	36	34	32	30	30	38	40	36	34.04
	Average "T1" : 34.4 Comp. Strength: 31.19 N/mm^2										
TENTH FLOOR COLUMN (F10 C99) FACE B	38	46	40	32	36	38	40	32	36	40	35.90
	Average "T2" : 37.8 Comp. Strength: 36.88 N/mm^2										
TENTH FLOOR BEAM (F10 B12) FACE A	44	38	32	36	40	34	40	34	38	40	35.90
	Average "T1" : 37.6 Comp. Strength: 36.49 N/mm^2										
TENTH FLOOR BEAM (F10 B12) FACE B	36	34	40	34	36	36	34	40	38	42	35.90
	Average "T2" : 37 Comp. Strength: 35.31 N/mm^2										

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ELEVENTH FLOOR COLUMN (F11 C107) FACE A	34	32	32	30	32	30	30	30	42	40	28.94
	Average "T1" : 33.2 Comp. Strength: 29.23 N/mm <sup>2</sup>										
ELEVENTH FLOOR COLUMN (F11 C107) FACE B	32	32	30	36	34	30	32	32	32	38	
	Average "T2" : 32.8 Comp. Strength: 28.64 N/mm <sup>2</sup>										
ELEVENTH FLOOR BEAM (F11 B13) FACE A	36	38	34	38	32	34	36	40	40	42	36.69
	Average "T1" : 37 Comp. Strength: 35.31 N/mm <sup>2</sup>										
ELEVENTH FLOOR BEAM (F11 B13) FACE B	30	40	40	42	36	38	38	40	38	42	
	Average "T2" : 38.4 Comp. Strength: 38.06 N/mm <sup>2</sup>										

TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
TWELFTH FLOOR COLUMN (F12 C56) FACE A	40	52	50	40	46	40	52	40	40	42	45.78
	Average "T1" : 44.2 Comp. Strength: 48.10 N/mm <sup>2</sup>										
TWELFTH FLOOR COLUMN (F12 C56) FACE B	44	40	40	40	40	42	38	42	40	48	
	Average "T2" : 41.4 Comp. Strength: 43.45 N/mm <sup>2</sup>										
TWELFTH FLOOR BEAM (F12 B14) FACE A	34	36	36	36	38	36	38	36	36	38	33.01
	Average "T1" : 36.4 Comp. Strength: 34.43 N/mm <sup>2</sup>										
TWELFTH FLOOR BEAM (F12 B14) FACE B	32	34	36	32	34	34	36	36	36	36	
	Average "T2" : 34.6 Comp. Strength: 31.58 N/mm <sup>2</sup>										

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TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
THIRTEENTH FLOOR COLUMN (F13 C47) FACE A	36	40	36	34	34	40	38	32	40	40	35.02
	Average "T1" : 37 Comp. Strength: 35.31 N/mm^2										
THIRTEENTH FLOOR COLUMN (F13 C47) FACE B	36	38	36	32	40	38	36	36	40	34	36.44
	Average "T2" : 36.6 Comp. Strength: 34.72 N/mm^2										
THIRTEENTH FLOOR BEAM (F13 B15) FACE A	32	44	38	42	38	38	40	38	38	38	35.36
	Average "T1" : 38.6 Comp. Strength: 38.45 N/mm^2										
THIRTEENTH FLOOR BEAM (F13 B15) FACE B	40	36	32	36	34	34	32	42	38	40	18.74
	Average "T2" : 36.4 Comp. Strength: 34.43 N/mm^2										

TULIP BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
FOURTEENTH FLOOR COLUMN (F14 C13) FACE A	36	38	40	38	40	34	36	32	40	34	35.36
	Average "T1" : 36.8 Comp. Strength: 35.02 N/mm^2										
FOURTEENTH FLOOR COLUMN (F14 C13) FACE B	38	38	34	40	36	36	40	32	40	38	18.74
	Average "T2" : 37.2 Comp. Strength: 35.70 N/mm^2										
FOURTEENTH FLOOR BEAM (F14 B16) FACE A	30	28	26	24	26	22	28	30	28	28	18.74
	Average "T1" : 27 Comp. Strength: 19.62 N/mm^2										
FOURTEENTH FLOOR BEAM (F14 B16) FACE B	24	26	26	30	24	26	24	24	28	26	18.74
	Average "T2" : 25.8 Comp. Strength: 17.85 N/mm^2										

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## IRIS BUILDING

IRIS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
BASEMENT COLUMN (B C-19) FACE A	38	38	34	42	40	40	38	42	44	48	41.10
	Average "T1" : 40.4 Comp. Strength: <b>41.49</b> N/mm^2										
BASEMENT COLUMN (B C-19) FACE B	40	40	38	40	42	40	38	40	40	42	44.73
	Average "T2" : 40 Comp. Strength: <b>40.71</b> N/mm^2										
BASEMENT BEAM (B B-1) FACE A	42	40	38	44	46	44	42	38	40	50	44.73
	Average "T1" : 42.4 Comp. Strength: <b>45.22</b> N/mm^2										
BASEMENT BEAM (B B-1) FACE B	40	40	42	42	48	40	44	40	40	42	44.73
	Average "T2" : 41.8 Comp. Strength: <b>44.24</b> N/mm^2										

IRIS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
GROUND FLOOR COLUMN (GF C-7) FACE A	46	42	40	42	40	42	42	42	38	42	45.13
	Average "T1" : 41.6 Comp. Strength: <b>43.85</b> N/mm^2										
GROUND FLOOR COLUMN (GF C-7) FACE B	50	42	42	38	44	46	46	46	40	38	45.13
	Average "T2" : 43.2 Comp. Strength: <b>46.40</b> N/mm^2										
GROUND FLOOR BEAM (GF B-2) FACE A	46	48	48	50	52	44	44	48	50	46	53.31
	Average "T1" : 47.6 Comp. Strength: <b>54.56</b> N/mm^2										
GROUND FLOOR BEAM (GF B-2) FACE B	44	46	50	50	46	46	48	46	44	44	53.31
	Average "T2" : 46.4 Comp. Strength: <b>52.06</b> N/mm^2										

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IRIS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
FIRST FLOOR COLUMN (F1 C-20) FACE A	34 32 32 32 30 32 36 34 40 34										36.84
	Average "T1" : 33.6 Comp. Strength: 29.82 N/mm^2										
FIRST FLOOR COLUMN (F1 C-20) FACE B	40 48 32 42 38 42 40 38 48 48										41.35
	Average "T2" : 41.6 Comp. Strength: 43.85 N/mm^2										
FIRST FLOOR BEAM (F1 B-3) FACE A	38 38 36 36 42 38 48 36 38 40										41.35
	Average "T1" : 39 Comp. Strength: 39.24 N/mm^2										
FIRST FLOOR BEAM (F1 B-3) FACE B	42 42 44 40 38 42 38 34 50 44										
	Average "T2" : 41.4 Comp. Strength: 43.45 N/mm^2										

IRIS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
SECOND FLOOR COLUMN (F2 C-73) FACE A	46 40 42 42 36 44 42 48 46 50										43.70
	Average "T1" : 43.6 Comp. Strength: 46.98 N/mm^2										
SECOND FLOOR COLUMN (F2 C-73) FACE B	42 40 36 42 36 36 46 40 38 42										37.13
	Average "T2" : 39.8 Comp. Strength: 40.41 N/mm^2										
SECOND FLOOR BEAM (F2 B-4) FACE A	38 34 34 38 32 34 34 38 40 38										37.13
	Average "T1" : 36 Comp. Strength: 33.84 N/mm^2										
SECOND FLOOR BEAM (F2 B-4) FACE B	38 38 42 38 38 40 44 44 38 38										
	Average "T2" : 39.8 Comp. Strength: 40.41 N/mm^2										

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THIRD FLOOR COLUMN (F3 C-47) FACE A	32 40 38 38 40 38 36 34 36 42										40.96
	Average "T1" : 37.4 Comp. Strength: 36.10 N/mm^2										
THIRD FLOOR COLUMN (F3 C-47) FACE B	42 40 44 44 44 42 48 36 40 48										38.80
	Average "T2" : 42.8 Comp. Strength: 45.81 N/mm^2										
THIRD FLOOR BEAM (F3 B-5) FACE A	34 44 40 38 36 42 36 36 38 40										38.80
	Average "T1" : 38.4 Comp. Strength: 38.06 N/mm^2										
THIRD FLOOR BEAM (F3 B-5) FACE B	42 38 40 40 36 42 38 42 40 34										
	Average "T2" : 39.2 Comp. Strength: 39.53 N/mm^2										

IRIS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
FOURTH FLOOR COLUMN (F4 C-60) FACE A	40 40 36 42 40 46 42 40 42 38										47.96
	Average "T1" : 40.6 Comp. Strength: 41.88 N/mm^2										
FOURTH FLOOR COLUMN (F4 C-60) FACE B	52 42 50 48 46 46 44 48 52 46										
	Average "T2" : 47.4 Comp. Strength: 54.03 N/mm^2										
FOURTH FLOOR BEAM (F4 B-6) FACE A	40 46 44 40 40 38 48 36 38 38										39.98
	Average "T1" : 40.8 Comp. Strength: 42.28 N/mm^2										
FOURTH FLOOR BEAM (F4 B-6) FACE B	36 40 36 36 32 40 34 42 40 46										
	Average "T2" : 38.2 Comp. Strength: 37.67 N/mm^2										

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IRIS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
FIFTH FLOOR COLUMN (F5 C-67) FACE A	38	40	42	44	42	42	40	46	44	44	45.07
	Average "T1" : 42.2 Comp. Strength: 44.92 N/mm^2										
FIFTH FLOOR COLUMN (F5 C-67) FACE B	42	42	44	44	42	40	42	42	42	44	38.94
	Average "T2" : 42.4 Comp. Strength: 45.22 N/mm^2										
FIFTH FLOOR BEAM (F5 B-7) FACE A	38	44	42	30	42	40	32	42	40	44	38.94
	Average "T1" : 39.4 Comp. Strength: 39.82 N/mm^2										
FIFTH FLOOR BEAM (F5-B7) FACE B	32	34	40	42	40	38	40	40	40	38	38.94
	Average "T2" : 38.4 Comp. Strength: 38.06 N/mm^2										

IRIS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
SIXTH FLOOR COLUMN (F6 C-70) FACE A	32	34	34	32	38	36	36	34	36	44	31.39
	Average "T1" : 35.6 Comp. Strength: 33.25 N/mm^2										
SIXTH FLOOR COLUMN (F6 C-70) FACE B	34	36	34	32	36	30	30	30	38	34	32.03
	Average "T2" : 33.4 Comp. Strength: 29.52 N/mm^2										
SIXTH FLOOR BEAM (F6 B-8) FACE A	32	32	38	32	34	36	42	30	32	34	32.03
	Average "T1" : 34.2 Comp. Strength: 30.80 N/mm^2										
SIXTH FLOOR BEAM (F6 B-8) FACE B	34	38	38	36	34	34	40	34	34	34	32.03
	Average "T2" : 35.6 Comp. Strength: 33.25 N/mm^2										

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SEVENTH FLOOR COLUMN (F7 C-51) FACE A	30	36	34	34	32	40	38	38	44	32	36.84
	Average "T1" : 35.8 Comp. Strength: 33.55 N/mm^2										
SEVENTH FLOOR COLUMN (F7 C51) FACE B	38	36	36	42	44	40	40	40	42	38	38.55
	Average "T2" : 39.6 Comp. Strength: 40.12 N/mm^2										
SEVENTH FLOOR BEAM (F7 B-9) FACE A	42	42	32	40	44	40	38	38	38	40	38.55
	Average "T1" : 39.4 Comp. Strength: 39.82 N/mm^2										
SEVENTH FLOOR BEAM (F7 B-9) FACE B	38	36	38	40	38	38	36	34	48	34	
	Average "T2" : 38 Comp. Strength: 37.27 N/mm^2										

IRIS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
EIGHTH FLOOR COLUMN (F8 C-49) FACE A	30	30	30	32	32	30	30	32	30	28	25.65
	Average "T1" : 30.4 Comp. Strength: 24.62 N/mm^2										
EIGHTH FLOOR COLUMN (F8 C-49) FACE B	30	32	32	30	32	30	32	32	36	30	26.63
	Average "T2" : 31.6 Comp. Strength: 26.68 N/mm^2										
EIGHTH FLOOR BEAM (F8 B-10) FACE A	32	32	30	30	32	28	32	30	32	32	
	Average "T1" : 31 Comp. Strength: 25.50 N/mm^2										
EIGHTH FLOOR BEAM (F8 B-10) FACE B	32	32	32	36	32	34	30	30	34	30	
	Average "T2" : 32.2 Comp. Strength: 27.76 N/mm^2										

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IRIS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY											AVERAGE STRENGTH (N/mm^2)
NINTH FLOOR COLUMN (F9 C-31) FACE A	30 30 30 32 32 30 30 32 30 30 28											25.65
	Average "T1" : 30.4 Comp. Strength: <b>24.62</b> N/mm^2											
NINTH FLOOR COLUMN (F9 C-31) FACE B	30 32 32 30 32 30 32 32 36 30											39.68
	Average "T2" : 31.6 Comp. Strength: <b>26.68</b> N/mm^2											
NINTH FLOOR BEAM (F9 B-11) FACE A	38 36 38 40 48 36 42 38 38 40											39.68
	Average "T1" : 39.4 Comp. Strength: <b>39.82</b> N/mm^2											
NINTH FLOOR BEAM (F9 B-11) FACE B	40 36 48 36 40 38 34 40 42 38											
	Average "T2" : 39.2 Comp. Strength: <b>39.53</b> N/mm^2											

IRIS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY											AVERAGE STRENGTH (N/mm^2)
TENTH FLOOR COLUMN (F10 C-36) FACE A	32 30 32 34 32 34 32 32 36 34											30.51
	Average "T1" : 32.8 Comp. Strength: <b>28.64</b> N/mm^2											
TENTH FLOOR COLUMN (F10 C-36) FACE B	34 30 32 38 32 34 36 38 44 32											37.28
	Average "T2" : 35 Comp. Strength: <b>32.37</b> N/mm^2											
TENTH FLOOR BEAM (F10 B-12) FACE A	32 40 38 38 34 40 38 38 36 40											
	Average "T1" : 37.4 Comp. Strength: <b>36.10</b> N/mm^2											
TENTH FLOOR BEAM (F10 B-12) FACE B	36 34 40 40 38 42 36 40 36 44											
	Average "T2" : 38.6 Comp. Strength: <b>38.45</b> N/mm^2											

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IRIS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
ELEVENTH FLOOR COLUMN (F11 C-25) FACE A	38	38	38	36	36	34	30	34	36	38	34.29
	Average "T1" : 35.8 Comp. Strength: 33.55 N/mm^2										
ELEVENTH FLOOR COLUMN (F11 C-25) FACE B	34	34	34	34	44	36	38	40	36	38	38.30
	Average "T2" : 36.8 Comp. Strength: 35.02 N/mm^2										
ELEVENTH FLOOR BEAM (F11 B-13) FACE A	40	42	44	36	48	38	40	40	40	38	38.30
	Average "T1" : 40.6 Comp. Strength: 41.88 N/mm^2										
ELEVENTH FLOOR BEAM (F11 B-13) FACE B	36	36	34	36	38	38	38	32	38	40	38.30
	Average "T2" : 36.6 Comp. Strength: 34.72 N/mm^2										

IRIS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
TWELFTH FLOOR COLUMN (F12 C-9) FACE A	30	32	36	32	32	28	30	30	28	28	26.63
	Average "T1" : 30.6 Comp. Strength: 24.91 N/mm^2										
TWELFTH FLOOR COLUMN (F12 C-9) FACE B	34	34	30	34	30	38	30	34	32	30	30.11
	Average "T2" : 32.6 Comp. Strength: 28.35 N/mm^2										
TWELFTH FLOOR BEAM (F12 B-14) FACE A	30	38	32	34	38	32	34	34	34	32	30.11
	Average "T1" : 33.8 Comp. Strength: 30.11 N/mm^2										
TWELFTH FLOOR BEAM (F12 B-14) FACE B	36	34	34	34	32	36	32	36	34	30	30.11
	Average "T2" : 33.8 Comp. Strength: 30.11 N/mm^2										

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IRIS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY											AVERAGE STRENGTH (N/mm <sup>2</sup> )
THIRTEENTH FLOOR COLUMN (F13 C-26) FACE A	38	38	38	36	32	42	40	38	38	38	38	38.50
	Average "T1" : 37.8 Comp. Strength: <b>36.88</b> N/mm <sup>2</sup>											
THIRTEENTH FLOOR COLUMN (F13 C-26) FACE B	40	40	38	38	42	38	40	40	40	40	40	38.50
	Average "T2" : 39.6 Comp. Strength: <b>40.12</b> N/mm <sup>2</sup>											
THIRTEENTH FLOOR BEAM (F13 B-15) FACE A	30	32	32	34	32	30	30	34	30	30	34	28.15
	Average "T1" : 31.8 Comp. Strength: <b>27.07</b> N/mm <sup>2</sup>											
THIRTEENTH FLOOR BEAM (F13 B-15) FACE B	32	32	34	32	34	34	34	34	36	36	30	28.15
	Average "T2" : 33.2 Comp. Strength: <b>29.23</b> N/mm <sup>2</sup>											

IRIS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY											AVERAGE STRENGTH (N/mm <sup>2</sup> )
FOURTEENTH FLOOR COLUMN (F14 C-12) FACE A	40	34	34	30	34	32	34	32	32	32	32	27.37
	Average "T1" : 33.4 Comp. Strength: <b>29.52</b> N/mm <sup>2</sup>											
FOURTEENTH FLOOR COLUMN (F14 C-12) FACE B	32	34	34	32	30	28	30	30	28	28	30	27.37
	Average "T2" : 30.8 Comp. Strength: <b>25.21</b> N/mm <sup>2</sup>											
FOURTEENTH FLOOR BEAM (F14 B-16) FACE A	42	40	32	32	38	40	40	40	34	34	36	39.58
	Average "T1" : 37.4 Comp. Strength: <b>36.10</b> N/mm <sup>2</sup>											
FOURTEENTH FLOOR BEAM (F14 B-16) FACE B	40	38	48	42	44	44	40	38	36	36	42	39.58
	Average "T2" : 41.2 Comp. Strength: <b>43.06</b> N/mm <sup>2</sup>											

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## CASPIA BUILDING

CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )	
BASEMENT COLUMN B C-69 FACE A	40	40	42	50	40	40	44	36	40	44	42.87	
	Average "T1" : 41.6 Comp. Strength: <b>43.85</b> N/mm <sup>2</sup>											
BASEMENT COLUMN B C-69 FACE B	46	38	40	46	38	38	38	40	42	40	43.85	
	Average "T2" : 40.6 Comp. Strength: <b>41.88</b> N/mm <sup>2</sup>											
BASEMENT BEAM B B- 1 FACE A	46	42	46	40	44	42	42	46	46	42	43.85	
	Average "T1" : 43.6 Comp. Strength: <b>46.98</b> N/mm <sup>2</sup>											
BASEMENT BEAM B B- 1 FACE B	40	44	40	38	42	40	38	38	40	40		
	Average "T2" : 40 Comp. Strength: <b>40.71</b> N/mm <sup>2</sup>											

CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )	
GROUND FLOOR COLUMN (GF C-74) FACE A	44	42	40	42	42	40	40	40	40	40	41.69	
	Average "T1" : 41 Comp. Strength: <b>42.67</b> N/mm <sup>2</sup>											
GROUND FLOOR COLUMN (GF C-74) FACE B	40	40	40	40	36	44	40	42	42	36	47.69	
	Average "T2" : 40 Comp. Strength: <b>40.71</b> N/mm <sup>2</sup>											
GROUND FLOOR BEAM (GF B-2) FACE A	40	46	46	42	42	46	42	44	44	46	47.69	
	Average "T1" : 43.8 Comp. Strength: <b>47.28</b> N/mm <sup>2</sup>											
GROUND FLOOR BEAM (GF B-2) FACE B	44	38	42	42	44	46	46	48	44	48		
	Average "T2" : 44.2 Comp. Strength: <b>48.10</b> N/mm <sup>2</sup>											

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CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY											AVERAGE STRENGT H (N/mm <sup>2</sup> )
FIRST FLOOR COLUMN (F1 C-80) FACE A	34	34	46	34	34	34	36	40	42	44		46.90
	Average "T1" : 37.8 Comp. Strength: 36.88 N/mm <sup>2</sup>											
FIRST FLOOR COLUMN (F1 C-80) FACE B	50	52	54	52	48	48	46	46	44	42		40.61
	Average "T2" : 48.2 Comp. Strength: 56.92 N/mm <sup>2</sup>											
FIRST FLOOR BEAM (F1 B- 3) FACE A	40	38	40	38	38	36	38	46	40	42		40.61
	Average "T1" : 39.6 Comp. Strength: 40.12 N/mm <sup>2</sup>											
FIRST FLOOR BEAM (F1 B- 3) FACE B	42	36	38	36	38	42	44	42	48	36		40.61
	Average "T2" : 40.2 Comp. Strength: 41.10 N/mm <sup>2</sup>											

CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY											AVERAGE STRENGTH (N/mm <sup>2</sup> )
SECOND FLOOR COLUMN (F2 C-53) FACE A	38	40	38	38	38	36	40	36	36	34		38.80
	Average "T1" : 37.4 Comp. Strength: 36.10 N/mm <sup>2</sup>											
SECOND FLOOR COLUMN (F2 C-53) FACE B	40	38	42	38	42	38	46	42	38	40		38.31
	Average "T2" : 40.4 Comp. Strength: 41.49 N/mm <sup>2</sup>											
SECOND FLOOR BEAM (F2 B-4) FACE A	34	40	42	36	36	42	36	36	38	36		38.31
	Average "T1" : 37.6 Comp. Strength: 36.49 N/mm <sup>2</sup>											
SECOND FLOOR BEAM (F2 B-4) FACE B	44	40	32	40	38	46	40	38	38	40		38.31
	Average "T2" : 39.6 Comp. Strength: 40.12 N/mm <sup>2</sup>											

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CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
THIRD FLOOR COLUMN (F3C-58) FACE A	42	44	42	36	36	42	32	36	36	36	36.89
	Average "T1" : 38.2 Comp. Strength: <b>37.67</b> N/mm <sup>2</sup>										
THIRD FLOOR COLUMN (F3 C-58) FACE B	36	40	36	36	38	36	46	36	36	34	33.25
	Average "T2" : 37.4 Comp. Strength: <b>36.10</b> N/mm <sup>2</sup>										
THIRD FLOOR BEAM (F3 B-5) FACE A	40	38	38	40	36	30	30	36	32	36	33.25
	Average "T1" : 35.6 Comp. Strength: <b>33.25</b> N/mm <sup>2</sup>										

CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
FOURTH FLOOR COLUMN (F4 C-12) FACE A	34	34	32	40	32	30	36	38	36	34	33.64
	Average "T1" : 34.6 Comp. Strength: <b>31.58</b> N/mm <sup>2</sup>										
FOURTH FLOOR COLUMN (F4 C-12) FACE B	40	36	36	36	34	36	38	42	38	36	30.80
	Average "T2" : 37.2 Comp. Strength: <b>35.70</b> N/mm <sup>2</sup>										
FOURTH FLOOR BEAM (F4 B-6) FACE A	34	34	30	30	32	34	34	30	32	34	30.80
	Average "T1" : 32.4 Comp. Strength: <b>28.05</b> N/mm <sup>2</sup>										
FOURTH FLOOR BEAM (F4 B-6) FACE B	32	32	32	42	36	42	34	40	36	32	30.80
	Average "T2" : 35.8 Comp. Strength: <b>33.55</b> N/mm <sup>2</sup>										

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CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
FIFTH FLOOR COLUMN (F5 C-21) FACE A	26	32	30	32	34	28	28	30	26	30	23.15
	Average "T1" : 29.6 Comp. Strength: <b>23.44</b> N/mm <sup>2</sup>										
FIFTH FLOOR COLUMN (F5 C-21) FACE B	34	32	32	32	28	24	26	22	28	34	38.99
	Average "T2" : 29.2 Comp. Strength: <b>22.85</b> N/mm <sup>2</sup>										
FIFTH FLOOR BEAM (F5 B-7) FACE A	40	46	42	40	36	36	44	40	42	38	38.99
	Average "T1" : 40.4 Comp. Strength: <b>41.49</b> N/mm <sup>2</sup>										
FIFTH FLOOR BEAM (F5 B- 7) FACE B	42	44	36	38	38	32	32	38	42	34	38.99
	Average "T2" : 37.6 Comp. Strength: <b>36.49</b> N/mm <sup>2</sup>										

CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
SIXTH FLOOR COLUMN (F6 C-30) FACE A	36	34	32	34	32	36	32	30	34	30	36.00
	Average "T1" : 33 Comp. Strength: <b>28.93</b> N/mm <sup>2</sup>										
SIXTH FLOOR COLUMN (F6C-30) FACE B	44	40	40	38	46	42	40	40	44	38	32.47
	Average "T2" : 41.2 Comp. Strength: <b>43.06</b> N/mm <sup>2</sup>										
SIXTH FLOOR BEAM (F6 B- 8) FACE A	34	36	36	34	34	34	34	36	34	36	32.47
	Average "T1" : 34.8 Comp. Strength: <b>31.98</b> N/mm <sup>2</sup>										
SIXTH FLOOR BEAM (F6 B- 8) FACE B	34	36	34	36	36	34	36	34	38	36	32.47
	Average "T2" : 35.4 Comp. Strength: <b>32.96</b> N/mm <sup>2</sup>										

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SEVENTH FLOOR COLUMN (F7 C- 37) FACE A	36	34	40	40	38	36	44	44	38	36	34.14
	Average "T1" : 38.6 Comp. Strength: 38.45 N/mm <sup>2</sup>										
SEVENTH FLOOR COLUMN (F7 C- 37) FACE B	30	36	30	30	36	30	40	32	38	34	37.28
	Average "T2" : 33.6 Comp. Strength: 29.82 N/mm <sup>2</sup>										
SEVENTH FLOOR BEAM (F7 B-9) FACE A	36	38	36	38	36	42	38	32	36	42	37.28
	Average "T1" : 37.4 Comp. Strength: 36.10 N/mm <sup>2</sup>										
SEVENTH FLOOR BEAM (F7 B-9) FACE B	40	32	42	44	38	36	34	40	42	38	37.28
	Average "T2" : 38.6 Comp. Strength: 38.45 N/mm <sup>2</sup>										

CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
EIGTH FLOOR COLUMN (F8 C- 18) FACE A	32	38	38	36	38	34	32	30	34	38	34.43
	Average "T1" : 35 Comp. Strength: 32.37 N/mm <sup>2</sup>										
EIGTH FLOOR COLUMN (F8 C- 18) FACE B	40	40	38	34	38	34	34	38	40	40	40.17
	Average "T2" : 37.6 Comp. Strength: 36.49 N/mm <sup>2</sup>										
EIGTH FLOOR BEAM (F8 B-10) FACE A	40	38	36	38	40	42	46	46	40	38	40.17
	Average "T1" : 40.4 Comp. Strength: 41.49 N/mm <sup>2</sup>										
EIGTH FLOOR BEAM (F8 B-10) FACE B	38	40	40	42	36	36	40	42	38	36	40.17
	Average "T2" : 38.8 Comp. Strength: 38.84 N/mm <sup>2</sup>										

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CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
NINTH FLOOR COLUMN (F9 C- 33) FACE A	30    30    32    34    36    30    30    34    36    36										29.38
	Average "T1" :    32.8                      Comp. Strength:    28.64    N/mm <sup>2</sup>										
NINTH FLOOR COLUMN (F9 C- 33) FACE B	30    32    34    38    36    34    30    32    38    34										30.17
	Average "T2" :    33.8                      Comp. Strength:    30.11    N/mm <sup>2</sup>										
NINTH FLOOR BEAM (F9 B- 11)                 FACE A	32    30    34    30    30    36    34    32    32    36										30.17
	Average "T1" :    32.6                      Comp. Strength:    28.35    N/mm <sup>2</sup>										
NINTH FLOOR BEAM (F9 B-11) FACE B	34    36    34    36    36    36    34    40    30    32										
	Average "T2" :    34.8                      Comp. Strength:    31.98    N/mm <sup>2</sup>										

CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
TENTH FLOOR COLUMN (F10 C-8)            FACE A	30    32    32    32    40    30    34    36    36    32										28.64
	Average "T1" :    33.4                      Comp. Strength:    29.52    N/mm <sup>2</sup>										
TENTH FLOOR COLUMN (F10 C-8)            FACE B	34    30    34    32    32    30    30    32    34    34										28.94
	Average "T2" :    32.2                      Comp. Strength:    27.76    N/mm <sup>2</sup>										
TENTH FLOOR BEAM (F10 B- 12) FACE A	32    30    32    32    34    32    32    32    34    34										28.94
	Average "T1" :    32.4                      Comp. Strength:    28.05    N/mm <sup>2</sup>										
TENTH FLOOR BEAM (F10 B-12) FACE B	34    32    30    34    32    32    36    36    30    40										
	Average "T2" :    33.6                      Comp. Strength:    29.82    N/mm <sup>2</sup>										

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CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
ELEVENTH FLOOR COLUMN (F11 C-27) FACE A	32	32	36	32	36	36	34	36	38	32	29.92
	Average "T1" : 34.4 Comp. Strength: <b>31.19</b> N/mm <sup>2</sup>										
ELEVENTH FLOOR COLUMN (F11 C-27) FACE B	32	30	34	34	30	36	32	32	34	34	30.75
	Average "T2" : 32.8 Comp. Strength: <b>28.64</b> N/mm <sup>2</sup>										
ELEVENTH FLOOR BEAM (F11 B-13) FACE A	38	32	30	30	36	36	34	32	32	34	30.75
	Average "T1" : 33.4 Comp. Strength: <b>29.52</b> N/mm <sup>2</sup>										
ELEVENTH FLOOR BEAM (F11 B-13) FACE B	34	34	36	34	32	34	34	36	38	36	30.75
	Average "T2" : 34.8 Comp. Strength: <b>31.98</b> N/mm <sup>2</sup>										

CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
TWELFTH FLOOR COLUMN (F12 C-56) FACE A	32	36	32	34	38	36	40	40	38	40	32.12
	Average "T1" : 36.6 Comp. Strength: <b>34.72</b> N/mm <sup>2</sup>										
TWELFTH FLOOR COLUMN (F12 C-56) FACE B	32	32	36	36	30	36	32	32	34	34	40.17
	Average "T2" : 33.4 Comp. Strength: <b>29.52</b> N/mm <sup>2</sup>										
TWELFTH FLOOR BEAM (F12 B-14) FACE A	34	32	38	40	40	34	32	36	42	44	40.17
	Average "T1" : 37.2 Comp. Strength: <b>35.70</b> N/mm <sup>2</sup>										
TWELFTH FLOOR BEAM (F12 B-14) FACE B	46	40	42	40	38	42	44	46	40	42	40.17
	Average "T2" : 42 Comp. Strength: <b>44.63</b> N/mm <sup>2</sup>										

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CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
THIRTEENTH FLOOR COLUMN (F13 C-76) FACE A	32	34	40	40	38	38	36	36	36	38	38.45
	Average "T1" : 36.8 Comp. Strength: <b>35.02</b> N/mm <sup>2</sup>										
THIRTEENTH FLOOR COLUMN (F13 C-76) FACE B	36	38	46	42	44	44	40	38	42	36	44.24
	Average "T2" : 40.6 Comp. Strength: <b>41.88</b> N/mm <sup>2</sup>										
THIRTEENTH FLOOR BEAM (F13 B-15) FACE A	42	42	44	38	44	42	36	40	40	36	44.24
	Average "T1" : 40.4 Comp. Strength: <b>41.49</b> N/mm <sup>2</sup>										
THIRTEENTH FLOOR BEAM (F13 B-15) FACE B	40	46	46	46	42	44	44	46	38	44	
	Average "T2" : 43.6 Comp. Strength: <b>46.98</b> N/mm <sup>2</sup>										

CASPIA BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
FOURTEENTH FLOOR COLUMN (F14 C- 79) FACE A	38	40	40	32	34	34	34	36	38	38	35.46
	Average "T1" : 36.4 Comp. Strength: <b>34.43</b> N/mm <sup>2</sup>										
FOURTEENTH FLOOR COLUMN (F14 C-79) FACE B	36	40	38	36	36	40	40	38	32	40	
	Average "T2" : 37.6 Comp. Strength: <b>36.49</b> N/mm <sup>2</sup>										
FOURTEENTH FLOOR BEAM (F14 B-16) FACE A	42	38	36	40	38	40	36	36	42	40	39.78
	Average "T1" : 38.8 Comp. Strength: <b>38.84</b> N/mm <sup>2</sup>										
FOURTEENTH FLOOR BEAM (F14 B-16) FACE B	34	38	36	36	42	46	46	46	36	40	
	Average "T2" : 40 Comp. Strength: <b>40.71</b> N/mm <sup>2</sup>										

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## BEETEL BUILDING

TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
BASEMENT COLUMN (B C-19) FACE A	30	40	40	40	38	36	38	46	44	38	43.67
	Average "T1" : 39 Comp. Strength: 39.24 N/mm <sup>2</sup>										
BASEMENT COLUMN (B C-19) FACE B	44	38	42	44	44	50	44	44	46	46	44.49
	Average "T1" : 44.2 Comp. Strength: 48.1 N/mm <sup>2</sup>										
BASEMENT BEAM (B B-1) FACE A	46	46	40	44	40	48	50	42	40	38	44.49
	Average "T1" : 43.4 Comp. Strength: 46.69 N/mm <sup>2</sup>										
BASEMENT BEAM (B B-1) FACE B	38	40	44	38	40	40	38	46	44	40	44.49
	Average "T1" : 40.8 Comp. Strength: 42.28 N/mm <sup>2</sup>										

TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
GROUND FLOOR COLUMN (GF C- 75) FACE A	30	34	36	32	34	36	38	40	34	40	33.40
	Average "T2" : 35.4 Comp. Strength: 32.96 N/mm <sup>2</sup>										
GROUND FLOOR COLUMN (GF C- 75) FACE B	36	34	36	36	38	40	36	32	36	36	31.00
	Average "T2" : 36 Comp. Strength: 33.84 N/mm <sup>2</sup>										
GROUND FLOOR BEAM (GF B-2) FACE A	34	30	34	38	30	36	30	38	36	34	31.00
	Average "T2" : 34 Comp. Strength: 30.41 N/mm <sup>2</sup>										
GROUND FLOOR BEAM (GF B-2) FACE B	30	38	30	36	38	36	34	34	34	36	31.00
	Average "T2" : 34.6 Comp. Strength: 31.58 N/mm <sup>2</sup>										

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TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )				
FIRST FLOOR COLUMN (F1 C- 109) FACE A	46 40 40 38 40 42 42 42 36 38										41.30				
Average "T3" : 40.4		Comp. Strength: 41.49 N/mm <sup>2</sup>													
FIRST FLOOR COLUMN (F1 C- 109) FACE B	40 46 40 40 44 40 36 38 40 38											37.08			
Average "T3" : 40.2		Comp. Strength: 41.1 N/mm <sup>2</sup>											37.08		
FIRST FLOOR BEAM (F1 B-3) FACE A	40 38 38 42 38 38 36 32 40 38												37.08		
Average "T3" : 38		Comp. Strength: 37.27 N/mm <sup>2</sup>											37.08		
FIRST FLOOR BEAM (F1 B-3) FACE B	38 36 40 34 40 38 38 40 38 36												37.08		
Average "T3" : 37.8		Comp. Strength: 36.88 N/mm <sup>2</sup>											37.08		

TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )		
SECOND FLOOR COLUMN (F2 C- 100) FACE A	34 34 34 34 30 34 36 32 40 38										34.23		
Average "T4" : 34.6		Comp. Strength: 31.58 N/mm <sup>2</sup>										34.23	
SECOND FLOOR COLUMN (F2 C- 100) FACE B	36 36 38 38 38 40 36 42 36 38											33.65	
Average "T4" : 37.8		Comp. Strength: 36.88 N/mm <sup>2</sup>										33.65	
SECOND FLOOR BEAM (F2 B-4) FACE A	36 34 44 38 40 32 34 36 42 34											33.65	
Average "T4" : 37		Comp. Strength: 35.31 N/mm <sup>2</sup>										33.65	
SECOND FLOOR BEAM (F2 B-4) FACE B	38 32 32 34 38 36 36 32 34 36											33.65	
Average "T4" : 34.8		Comp. Strength: 31.98 N/mm <sup>2</sup>										33.65	

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TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
THIRD FLOOR COLUMN (F3 C- 84) FACE A	44 40 42 42 48 44 38 40 42 44  Average "T1" : 42.4 Comp. Strength: 45.22 N/mm <sup>2</sup>										43.55
THIRD FLOOR COLUMN (F3 C- 84) FACE B	42 42 34 46 44 40 46 34 40 38  Average "T1" : 40.6 Comp. Strength: 41.88 N/mm <sup>2</sup>										
THIRD FLOOR BEAM (F3 B-5) FACE A	32 34 32 36 36 38 36 32 34 38  Average "T1" : 34.8 Comp. Strength: 31.98 N/mm <sup>2</sup>										31.59
THIRD FLOOR BEAM (F3 B-5) FACE B	32 30 36 34 34 34 38 32 36 38  Average "T1" : 34.4 Comp. Strength: 31.19 N/mm <sup>2</sup>										

TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
FOURTH FLOOR COLUMN (F4 C- 63) FACE A	38 42 34 36 34 32 36 38 38 36  Average "T2" : 36.4 Comp. Strength: 34.43 N/mm <sup>2</sup>										39.14
FOURTH FLOOR COLUMN (F4 C- 63) FACE B	42 52 44 38 38 40 36 38 44 44  Average "T2" : 41.6 Comp. Strength: 43.85 N/mm <sup>2</sup>										
FOURTH FLOOR BEAM (F4 B-6) FACE A	32 34 40 32 36 40 32 38 32 34  Average "T2" : 35 Comp. Strength: 32.37 N/mm <sup>2</sup>										32.67
FOURTH FLOOR BEAM (F4 B-6) FACE B	40 28 34 32 30 38 38 40 38 36  Average "T2" : 35.4 Comp. Strength: 32.96 N/mm <sup>2</sup>										

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TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )	
FIFTH FLOOR COLUMN (F5 C- 89) FACE A	40 34 36 38 38 40 42 42 36 34										37.08	
Average "T3" : 38 Comp. Strength: 37.27 N/mm <sup>2</sup>												
FIFTH FLOOR COLUMN (F5 C- 89) FACE B	32 40 36 40 38 40 40 34 38 40											
Average "T3" : 37.8 Comp. Strength: 36.88 N/mm <sup>2</sup>											36.88	
FIFTH FLOOR BEAM (F5 B-7) FACE A	40 38 38 34 42 38 40 42 34 38											
Average "T3" : 38.4 Comp. Strength: 38.06 N/mm <sup>2</sup>												
FIFTH FLOOR BEAM (F5 B-7) FACE B	38 36 36 38 40 40 36 34 36 38											
Average "T3" : 37.2 Comp. Strength: 35.7 N/mm <sup>2</sup>												

TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )	
SIXTH FLOOR COLUMN (F6 C- 76) FACE A	40 46 42 38 40 42 42 44 40 42										45.27	
Average "T4" : 41.6 Comp. Strength: 43.85 N/mm <sup>2</sup>												
SIXTH FLOOR COLUMN (F6 C- 76) FACE B	40 40 44 46 44 46 44 42 48 40											
Average "T4" : 43.4 Comp. Strength: 46.69 N/mm <sup>2</sup>											38.50	
SIXTH FLOOR BEAM (F6 B-8) FACE A	40 38 36 36 38 40 32 36 40 42											
Average "T4" : 37.8 Comp. Strength: 36.88 N/mm <sup>2</sup>												
SIXTH FLOOR BEAM (F6 B-8) FACE B	46 42 38 36 44 32 38 40 42 38											
Average "T4" : 39.6 Comp. Strength: 40.12 N/mm <sup>2</sup>												

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TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
SEVENTH FLOOR COLUMN (F7 C-90) FACE A	40	36	38	42	40	36	34	36	38	38	35.22
	Average "T1" : 37.8 Comp. Strength: 36.88 N/mm <sup>2</sup>										
SEVENTH FLOOR COLUMN (F7 C-90) FACE B	36	36	34	34	36	36	34	38	40	34	32.00
	Average "T1" : 35.8 Comp. Strength: 33.55 N/mm <sup>2</sup>										
SEVENTH FLOOR BEAM (F7 B-9) FACE A	38	36	38	38	38	40	40	32	34	40	32.00
	Average "T1" : 37.4 Comp. Strength: 36.1 N/mm <sup>2</sup>										
SEVENTH FLOOR BEAM (F7 B-9) FACE B	32	36	3	36	34	36	36	38	36	36	32.00
	Average "T1" : 32.3 Comp. Strength: 27.9 N/mm <sup>2</sup>										

TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
EIGHT FLOOR COLUMN (F8 C- 55) FACE A	30	36	32	32	28	30	30	30	32	30	28.54
	Average "T2" : 31 Comp. Strength: 25.5 N/mm <sup>2</sup>										
EIGHT FLOOR COLUMN (F8 C- 55) FACE B	38	32	42	38	36	28	32	32	32	36	34.43
	Average "T2" : 34.6 Comp. Strength: 31.58 N/mm <sup>2</sup>										
EIGHT FLOOR BEAM (F8 B-10) FACE A	40	32	40	32	46	34	42	32	34	34	34.43
	Average "T2" : 36.6 Comp. Strength: 34.72 N/mm <sup>2</sup>										
EIGHT FLOOR BEAM (F8 B-10) FACE B	34	36	34	34	36	40	38	34	36	40	34.43
	Average "T2" : 36.2 Comp. Strength: 34.13 N/mm <sup>2</sup>										

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TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )	
NINTH FLOOR COLUMN (F9 C- 46) FACE A	44 48 42 38 44 44 40 38 44 42										42.38	
	Average "T3" : 42.4 Comp. Strength: 45.22 N/mm <sup>2</sup>											
NINTH FLOOR COLUMN (F9 C- 46) FACE B	42 36 38 40 38 40 44 36 40 38										30.95	
	Average "T3" : 39.2 Comp. Strength: 39.53 N/mm <sup>2</sup>											
NINTH FLOOR BEAM (F9 B-11) FACE A	38 40 36 34 40 28 34 32 36 38										30.95	
	Average "T3" : 35.6 Comp. Strength: 33.25 N/mm <sup>2</sup>											
NINTH FLOOR BEAM-11 FACE B	30 34 32 32 32 32 30 32 36 38										30.95	
	Average "T3" : 32.8 Comp. Strength: 28.64 N/mm <sup>2</sup>											

TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )	
TENTH FLOOR COLUMN (F10 C- 21) FACE A	36 42 40 38 36 32 32 40 36 38										32.57	
	Average "T4" : 37 Comp. Strength: 35.31 N/mm <sup>2</sup>											
TENTH FLOOR COLUMN (F10 C- 21) FACE B	34 32 30 30 30 36 34 36 38 36										40.61	
	Average "T4" : 33.6 Comp. Strength: 29.82 N/mm <sup>2</sup>											
TENTH FLOOR BEAM (F10 B-12) FACE A	44 48 34 40 42 46 36 38 40 34										40.61	
	Average "T4" : 40.2 Comp. Strength: 41.1 N/mm <sup>2</sup>											
TENTH FLOOR BEAM (F10 B-12) FACE B	42 38 42 36 38 42 38 40 38 42										40.61	
	Average "T4" : 39.6 Comp. Strength: 40.12 N/mm <sup>2</sup>											

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TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
ELEVENTH FLOOR COLUMN (F11 C 35) FACE A	44 46 38 40 44 44 42 40 46 44										48.31
ELEVENTH FLOOR COLUMN (F11 C 35) FACE B	Average "T1" : 42.8 Comp. Strength: 45.81 N/mm <sup>2</sup>										
ELEVENTH FLOOR BEAM (F11 B-13) FACE A	48 46 44 46 42 48 42 50 48 44										38.99
ELEVENTH FLOOR BEAM (F11 B-13) FACE B	Average "T1" : 45.8 Comp. Strength: 50.81 N/mm <sup>2</sup>										
ELEVENTH FLOOR BEAM (F11 B-13) FACE A	40 38 40 40 42 42 40 42 40 38										38.99
ELEVENTH FLOOR BEAM (F11 B-13) FACE B	Average "T1" : 40.2 Comp. Strength: 41.1 N/mm <sup>2</sup>										
ELEVENTH FLOOR BEAM (F11 B-13) FACE A	34 42 36 34 38 40 40 40 38 36										38.99
ELEVENTH FLOOR BEAM (F11 B-13) FACE B	Average "T1" : 37.8 Comp. Strength: 36.88 N/mm <sup>2</sup>										

TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
TWELVETH FLOOR COLUMN (F12 C108) FACE A	44 40 38 44 40 46 40 44 42 40										44.73
TWELVETH FLOOR COLUMN (F12 C108) FACE B	Average "T2" : 41.8 Comp. Strength: 44.24 N/mm <sup>2</sup>										
TWELVETH FLOOR BEAM (F12 B-14) FACE A	42 40 44 38 40 42 40 48 48 42										36.29
TWELVETH FLOOR BEAM (F12 B-14) FACE B	Average "T2" : 42.4 Comp. Strength: 45.22 N/mm <sup>2</sup>										
TWELVETH FLOOR BEAM (F12 B-14) FACE A	40 36 40 32 32 34 48 40 38 30										36.29
TWELVETH FLOOR BEAM (F12 B-14) FACE B	Average "T2" : 37 Comp. Strength: 35.31 N/mm <sup>2</sup>										
TWELVETH FLOOR BEAM (F12 B-14) FACE A	38 40 38 36 40 32 38 36 40 42										36.29
TWELVETH FLOOR BEAM (F12 B-14) FACE B	Average "T2" : 38 Comp. Strength: 37.27 N/mm <sup>2</sup>										

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TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
THIRTEENTH FLOOR COLUMN (F13 C 26) FACE A	48	44	48	40	40	42	46	50	42	42	47.25
	Average "T3" : 44.2 Comp. Strength: 48.1 N/mm <sup>2</sup>										
THIRTEENTH FLOOR COLUMN (F13 C 26) FACE B	42	48	42	44	42	42	44	40	46	42	46.54
	Average "T3" : 43.2 Comp. Strength: 46.4 N/mm <sup>2</sup>										
THIRTEENTH FLOOR BEAM (F13 B-15) FACE A	46	46	44	44	40	40	44	44	42	40	46.54
	Average "T3" : 43 Comp. Strength: 46.1 N/mm <sup>2</sup>										
THIRTEENTH FLOOR BEAM (F13 B-15) FACE B	40	42	48	44	48	46	42	42	40	44	46.54
	Average "T3" : 43.6 Comp. Strength: 46.98 N/mm <sup>2</sup>										

TEST LOCATION BEETEL BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
FOURTEENTH FLOOR COLUMN (F14 C-13) FACE A	48	50	48	50	44	48	46	42	42	40	50.41
	Average "T4" : 45.8 Comp. Strength: 50.81 N/mm <sup>2</sup>										
FOURTEENTH FLOOR COLUMN (F14 C-13) FACE B	46	48	50	46	40	44	50	44	38	46	50.41
	Average "T4" : 45.2 Comp. Strength: 50.01 N/mm <sup>2</sup>										
FOURTEENTH FLOOR BEAM (F14 B-16) FACE A	40	38	42	44	38	38	42	40	40	42	43.50
	Average "T4" : 40.4 Comp. Strength: 41.49 N/mm <sup>2</sup>										
FOURTEENTH FLOOR BEAM (F14 B-16) FACE B	42	40	40	48	46	44	42	38	38	48	43.50
	Average "T4" : 42.6 Comp. Strength: 45.51 N/mm <sup>2</sup>										

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## LOTUS BUILDING

LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
BASEMENT COLUMN (B C-33) FACE A	42	42	44	42	48	44	42	42	40	40	43.31
	Average "T1" : 42.6 Comp. Strength: <b>45.51</b> N/mm^2										
BASEMENT COLUMN (B C-33) FACE B	40	42	38	40	40	42	36	42	44	38	42.87
	Average "T2" : 40.2 Comp. Strength: <b>41.10</b> N/mm^2										
BASEMENT BEAM (B B-1) FACE A	42	40	40	48	42	44	40	38	42	42	42.87
	Average "T1" : 41.8 Comp. Strength: <b>44.24</b> N/mm^2										
BASEMENT BEAM (B B-1) FACE B	40	40	38	44	36	42	40	42	42	40	42.87
	Average "T2" : 40.4 Comp. Strength: <b>41.49</b> N/mm^2										

LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
GROUND FLOOR COLUMN (GF C-42) FACE A	44	46	42	48	46	46	48	50	48	44	44.84
	Average "T1" : 46.2 Comp. Strength: <b>52.00</b> N/mm^2										
GROUND FLOOR COLUMN (GF C-42) FACE B	34	34	42	40	38	36	42	34	38	44	40.56
	Average "T2" : 38.2 Comp. Strength: <b>37.67</b> N/mm^2										
GROUND FLOOR BEAM (GF B-2) FACE A	46	40	40	38	36	40	38	48	44	40	40.56
	Average "T1" : 41 Comp. Strength: <b>42.67</b> N/mm^2										
GROUND FLOOR BEAM (GF B-2) FACE B	36	38	36	36	38	40	42	40	38	42	40.56
	Average "T2" : 38.6 Comp. Strength: <b>38.45</b> N/mm^2										

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LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
FIRST FLOOR COLUMN (F1 C-12) FACE A	50	42	50	48	48	52	50	50	52	50	57.75
	Average "T1" : 49.2 Comp. Strength: 57.50 N/mm <sup>2</sup>										
FIRST FLOOR COLUMN (F1 C-12) FACE B	50	50	46	50	50	50	48	52	48	50	56.57
	Average "T2" : 49.4 Comp. Strength: 58.00 N/mm <sup>2</sup>										
FIRST FLOOR BEAM (F1 B-3) FACE A	50	48	48	46	48	50	48	50	52	40	56.57
	Average "T1" : 48 Comp. Strength: 55.63 N/mm <sup>2</sup>										
FIRST FLOOR BEAM (F1 B-3) FACE B	52	52	48	48	50	42	50	48	52	50	56.57
	Average "T2" : 49.2 Comp. Strength: 57.50 N/mm <sup>2</sup>										

LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
SECOND FLOOR COLUMN (F2 C-22) FACE A	46	42	40	42	42	42	42	40	40	38	44.34
	Average "T1" : 41.4 Comp. Strength: 43.45 N/mm <sup>2</sup>										
SECOND FLOOR COLUMN (F2 C-22) FACE B	44	44	42	38	42	48	42	40	40	44	40.42
	Average "T2" : 42.4 Comp. Strength: 45.22 N/mm <sup>2</sup>										
SECOND FLOOR BEAM (F2 B-4) FACE A	36	38	36	34	42	38	48	42	42	40	40.42
	Average "T1" : 39.6 Comp. Strength: 40.12 N/mm <sup>2</sup>										
SECOND FLOOR BEAM (F2 B-4) FACE B	40	40	40	40	38	42	42	40	40	38	40.42
	Average "T2" : 40 Comp. Strength: 40.71 N/mm <sup>2</sup>										

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LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
THIRD FLOOR COLUMN (F3 C-5) FACE A	32	38	38	34	36	38	36	40	46	36	37.82
	Average "T1" : 37.4 Comp. Strength: 36.10 N/mm <sup>2</sup>										
THIRD FLOOR COLUMN (F3 C-5) FACE B	40	40	38	38	38	36	38	40	44	40	36.30
	Average "T2" : 39.2 Comp. Strength: 39.53 N/mm <sup>2</sup>										
THIRD FLOOR BEAM (F3 B-5) FACE A	36	38	38	38	34	38	38	36	40	40	36.30
	Average "T1" : 37.6 Comp. Strength: 36.49 N/mm <sup>2</sup>										
THIRD FLOOR BEAM (F3 B-5) FACE B	38	36	38	40	38	36	40	38	34	36	36.30
	Average "T2" : 37.4 Comp. Strength: 36.10 N/mm <sup>2</sup>										

LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
FOURTH FLOOR COLUMN (F4 C-9) FACE A	42	42	44	34	38	34	42	42	44	42	41.49
	Average "T1" : 40.4 Comp. Strength: 41.49 N/mm <sup>2</sup>										
FOURTH FLOOR COLUMN (F4 C-9) FACE B	40	46	40	40	40	42	40	40	34	42	38.65
	Average "T2" : 40.4 Comp. Strength: 41.49 N/mm <sup>2</sup>										
FOURTH FLOOR BEAM (F4 B-6) FACE A	40	38	40	40	36	38	36	36	42	38	38.65
	Average "T1" : 38.4 Comp. Strength: 38.06 N/mm <sup>2</sup>										
FOURTH FLOOR BEAM (F4 B-6) FACE B	40	42	40	38	40	36	36	38	44	36	38.65
	Average "T2" : 39 Comp. Strength: 39.24 N/mm <sup>2</sup>										

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LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
FIFTH FLOOR COLUMN (F5 C-27) FACE A	40 38 42 44 38 38 42 38 32 42  Average "T1" : 39.4 Comp. Strength: 39.82 N/mm^2										37.57
FIFTH FLOOR COLUMN (F5 C-27) FACE B	34 34 40 44 42 36 34 34 36 36  Average "T2" : 37 Comp. Strength: 35.31 N/mm^2										
FIFTH FLOOR BEAM (F5 B-7) FACE A	32 32 34 30 36 30 36 34 38 34  Average "T1" : 33.6 Comp. Strength: 29.82 N/mm^2										30.12
FIFTH FLOOR BEAM (F5 B-7) FACE B	36 32 32 30 36 32 36 36 34 36  Average "T2" : 34 Comp. Strength: 30.41 N/mm^2										

LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
SIXTH FLOOR COLUMN (F6 C-32) FACE A	38 36 42 40 48 36 38 38 40 42  Average "T1" : 39.8 Comp. Strength: 40.41 N/mm^2										38.45
SIXTH FLOOR COLUMN (F6 C-32) FACE B	38 38 38 36 40 42 34 40 34 36  Average "T2" : 37.6 Comp. Strength: 36.49 N/mm^2										
SIXTH FLOOR BEAM (F6 B-8) FACE A	44 42 42 44 44 38 40 42 42 40  Average "T1" : 41.8 Comp. Strength: 44.24 N/mm^2										43.46
SIXTH FLOOR BEAM (F6 B-8) FACE B	36 40 38 44 40 46 46 40 38 42  Average "T2" : 41 Comp. Strength: 42.67 N/mm^2										

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LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)	
SEVENTH FLOOR COLUMN (F7 C-51) FACE A	42 42 40 38 34 40 44 38 38 46										41.89	
SEVENTH FLOOR COLUMN (F7 C-51) FACE B	Average "T1" : 40.2 Comp. Strength: 41.10 N/mm^2											41.89
SEVENTH FLOOR BEAM (F7 B-9) FACE A	44 42 36 42 42 44 40 42 40 38										40.46	
SEVENTH FLOOR BEAM (F7 B-9) FACE B	Average "T2" : 41 Comp. Strength: 42.67 N/mm^2											40.46
SEVENTH FLOOR BEAM (F7 B-9) FACE A	40 40 44 38 40 42 40 38 36 36										40.46	
SEVENTH FLOOR BEAM (F7 B-9) FACE B	Average "T1" : 39.4 Comp. Strength: 39.82 N/mm^2											40.46
SEVENTH FLOOR BEAM (F7 B-9) FACE A	40 42 40 36 46 40 38 38 40 42										40.46	
SEVENTH FLOOR BEAM (F7 B-9) FACE B	Average "T2" : 40.2 Comp. Strength: 41.10 N/mm^2											40.46

LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
EIGHT FLOOR COLUMN (F8 C-60) FACE A	38 40 40 36 44 40 32 38 36 46										41.35
EIGHT FLOOR COLUMN (F8 C-60) FACE B	Average "T1" : 39 Comp. Strength: 39.24 N/mm^2										41.35
EIGHT FLOOR BEAM (F8 B-10) FACE A	46 38 44 40 48 40 36 38 44 40										35.76
EIGHT FLOOR BEAM (F8 B-10) FACE B	Average "T2" : 41.4 Comp. Strength: 43.45 N/mm^2										35.76
EIGHT FLOOR BEAM (F8 B-10) FACE A	36 38 38 40 42 38 32 34 32 38										35.76
EIGHT FLOOR BEAM (F8 B-10) FACE B	Average "T1" : 36.8 Comp. Strength: 35.02 N/mm^2										35.76
EIGHT FLOOR BEAM (F8 B-10) FACE A	36 38 36 34 36 40 42 40 38 36										35.76
EIGHT FLOOR BEAM (F8 B-10) FACE B	Average "T2" : 37.6 Comp. Strength: 36.49 N/mm^2										35.76

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LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
NINTH FLOOR COLUMN (F9 C-70) FACE A	32	36	34	36	30	34	32	30	38	30	28.50
	Average "T1" : 33.2 Comp. Strength: <b>29.23</b> N/mm^2										
NINTH FLOOR COLUMN (F9 C-70) FACE B	30	30	32	32	32	36	30	34	30	36	35.85
	Average "T2" : 32.2 Comp. Strength: <b>27.76</b> N/mm^2										
NINTH FLOOR BEAM (F9 B-11) FACE A	38	40	36	34	36	38	46	44	34	40	35.85
	Average "T1" : 38.6 Comp. Strength: <b>38.45</b> N/mm^2										
NINTH FLOOR BEAM (F9 B-11) FACE B	36	36	40	34	38	32	38	32	36	34	35.85
	Average "T2" : 35.6 Comp. Strength: <b>33.25</b> N/mm^2										

LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
TENTH FLOOR COLUMN (F10 C-45) FACE A	36	34	40	36	40	36	38	38	44	40	37.08
	Average "T1" : 38.2 Comp. Strength: <b>37.67</b> N/mm^2										
TENTH FLOOR COLUMN (F10 C-45) FACE B	40	36	32	40	38	34	36	36	46	38	37.08
	Average "T2" : 37.6 Comp. Strength: <b>36.49</b> N/mm^2										
TENTH FLOOR BEAM (F10 B-12) FACE A	30	32	36	34	34	36	30	28	30	32	24.72
	Average "T1" : 32.2 Comp. Strength: <b>27.76</b> N/mm^2										
TENTH FLOOR BEAM (F10 B-12) FACE B	28	28	30	32	30	28	26	24	30	28	24.72
	Average "T2" : 28.4 Comp. Strength: <b>21.68</b> N/mm^2										

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LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)	
ELEVENTH FLOOR COLUMN (F11 C-63) FACE A	32 30 26 30 38 28 30 28 30 28										25.75	
ELEVENTH FLOOR COLUMN (F11 C-63) FACE B	Average "T1" : 30 Comp. Strength: 24.03 N/mm^2											25.75
ELEVENTH FLOOR BEAM (F11 B-13) FACE A	30 30 36 34 32 28 34 36 32 28										34.63	
ELEVENTH FLOOR BEAM (F11 B-13) FACE B	Average "T2" : 32 Comp. Strength: 27.46 N/mm^2											34.63
ELEVENTH FLOOR BEAM (F11 B-13) FACE A	36 42 36 36 36 34 32 32 30 32										34.63	
ELEVENTH FLOOR BEAM (F11 B-13) FACE B	Average "T1" : 34.6 Comp. Strength: 31.58 N/mm^2											34.63
ELEVENTH FLOOR BEAM (F11 B-13) FACE A	36 36 42 40 38 40 38 38 34 40										34.63	
ELEVENTH FLOOR BEAM (F11 B-13) FACE B	Average "T2" : 38.2 Comp. Strength: 37.67 N/mm^2											34.63

LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
TWELFTH FLOOR COLUMN (F12 C-55) FACE A	34 30 34 36 34 30 32 30 36 38										28.79
TWELFTH FLOOR COLUMN (F12 C-55) FACE B	Average "T1" : 33.4 Comp. Strength: 29.52 N/mm^2										28.79
TWELFTH FLOOR BEAM (F12 B-14) FACE A	32 32 34 32 32 34 30 34 34 30										39.97
TWELFTH FLOOR BEAM (F12 B-14) FACE B	Average "T2" : 32.4 Comp. Strength: 28.05 N/mm^2										39.97
TWELFTH FLOOR BEAM (F12 B-14) FACE A	38 38 30 42 40 40 44 44 40 40										39.97
TWELFTH FLOOR BEAM (F12 B-14) FACE B	Average "T1" : 39.6 Comp. Strength: 40.12 N/mm^2										39.97
TWELFTH FLOOR BEAM (F12 B-14) FACE A	40 36 40 38 42 40 38 44 38 38										39.97
TWELFTH FLOOR BEAM (F12 B-14) FACE B	Average "T2" : 39.4 Comp. Strength: 39.82 N/mm^2										39.97

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LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
THIRTEENTH FLOOR COLUMN (F13 C-14) FACE A	36 36 38 38 42 36 34 42 40 38										37.86
	Average "T1" : 38 Comp. Strength: 37.27 N/mm <sup>2</sup>										
THIRTEENTH FLOOR COLUMN (F13 C-14) FACE B	40 40 38 40 38 38 38 40 38 36										42.67
	Average "T2" : 38.6 Comp. Strength: 38.45 N/mm <sup>2</sup>										
THIRTEENTH FLOOR BEAM (F13 B-15) FACE A	40 38 40 44 38 40 42 38 42 42										42.67
	Average "T1" : 40.4 Comp. Strength: 41.49 N/mm <sup>2</sup>										
THIRTEENTH FLOOR BEAM (F13 B-15) FACE B	40 40 40 50 42 46 38 42 38 40										
	Average "T2" : 41.6 Comp. Strength: 43.85 N/mm <sup>2</sup>										

LOTUS BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
FOURTEENTH FLOOR COLUMN (F14 C-61) FACE A	42 40 54 40 44 40 42 48 40 42										48.27
	Average "T1" : 43.2 Comp. Strength: 46.40 N/mm <sup>2</sup>										
FOURTEENTH FLOOR COLUMN (F14 C-61) FACE B	42 42 42 44 48 46 46 48 50 46										
	Average "T2" : 45.4 Comp. Strength: 50.14 N/mm <sup>2</sup>										
FOURTEENTH FLOOR BEAM (F14 B-16) FACE A	38 40 38 42 46 38 40 36 40 42										39.58
	Average "T1" : 40 Comp. Strength: 40.71 N/mm <sup>2</sup>										
FOURTEENTH FLOOR BEAM (F14 B-16) FACE B	36 36 42 32 40 40 38 44 40 38										
	Average "T2" : 38.6 Comp. Strength: 38.45 N/mm <sup>2</sup>										

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## ORCHID BUILDING

TEST LOCATION ORCHID BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY											AVERAGE STRENGTH (N/mm <sup>2</sup> )
BASEMENT COLUMN (B C-45) FACE A	50	48	46	48	50	46	48	52	48	58		55.23
	Average "T1" : 49.4 Comp. Strength: 58.00 N/mm <sup>2</sup>											
BASEMENT COLUMN (B C-45) FACE B	52	50	48	40	44	50	48	48	46	42		46.54
	Average "T1" : 46.8 Comp. Strength: 52.45 N/mm <sup>2</sup>											
BASEMENT BEAM (B B-1) FACE A	46	40	46	40	40	46	46	46	44	46		46.54
	Average "T1" : 44 Comp. Strength: 47.57 N/mm <sup>2</sup>											
BASEMENT BEAM (B B-1) FACE B	44	44	44	42	42	42	40	46	40	42		46.54
	Average "T1" : 42.6 Comp. Strength: 45.51 N/mm <sup>2</sup>											

TEST LOCATION ORCHID BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY											AVERAGE STRENGTH (N/mm <sup>2</sup> )
GROUND FLOOR COLUMN (GF C- 27) FACE A	44	46	44	42	36	42	46	42	42	46		47.49
	Average "T2" : 43 Comp. Strength: 46.1 N/mm <sup>2</sup>											
GROUND FLOOR COLUMN (GF C- 27) FACE B	48	48	42	40	42	46	48	44	44	44		41.85
	Average "T2" : 44.6 Comp. Strength: 48.88 N/mm <sup>2</sup>											
GROUND FLOOR BEAM (GF B-2) FACE A	50	46	42	50	52	46	46	50	42	42		41.85
	Average "T2" : 46.6 Comp. Strength: 52.12 N/mm <sup>2</sup>											
GROUND FLOOR BEAM (GF B-2) FACE B	44	46	50	50	44	42	46	46	48	48		41.85
	Average "T2" : 46.4 Comp. Strength: 31.58 N/mm <sup>2</sup>											

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TEST LOCATION ORCHID BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )		
FIRST FLOOR COLUMN (F1 C- 13) FACE A	46 46 44 42 46 50 50 48 46 50										51.73		
FIRST FLOOR COLUMN (F1 C- 13) FACE B	Average "T3" : 46.8 Comp. Strength: 52.45 N/mm <sup>2</sup>											51.73	
FIRST FLOOR BEAM (F1 B-3) FACE A	42 46 48 52 44 48 44 48 48 40										47.10		
FIRST FLOOR BEAM (F1 B-3) FACE B	Average "T3" : 46 Comp. Strength: 51.01 N/mm <sup>2</sup>											47.10	
	44 50 44 52 48 40 48 50 56 44											47.10	
	Average "T3" : 47.6 Comp. Strength: 37.27 N/mm <sup>2</sup>											47.10	
	44 50 54 54 50 48 44 50 42 46											47.10	
	Average "T3" : 48.2 Comp. Strength: 56.92 N/mm <sup>2</sup>											47.10	

TEST LOCATION ORCHID BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
SECOND FLOOR COLUMN (F2 C-9) FACE A	44 46 44 50 32 48 38 36 34 34										41.15
SECOND FLOOR COLUMN (F2 C-9) FACE B	Average "T4" : 40.6 Comp. Strength: 41.88 N/mm <sup>2</sup>										41.15
SECOND FLOOR BEAM (F2 B-4) FACE A	36 46 34 44 38 38 40 40 42 40										49.05
SECOND FLOOR BEAM (F2 B-4) FACE B	Average "T4" : 39.8 Comp. Strength: 40.41 N/mm <sup>2</sup>										49.05
	48 46 46 46 44 44 44 48 50 46										49.05
	Average "T4" : 46.2 Comp. Strength: 52.00 N/mm <sup>2</sup>										49.05
	42 38 42 44 46 42 42 48 46 40										49.05
	Average "T4" : 43 Comp. Strength: 46.1 N/mm <sup>2</sup>										49.05

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TEST LOCATION ORCHID BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
THIRD FLOOR COLUMN (F3 C- 34) FACE A	40 40 42 44 42 46 46 42 38 44										43.95
THIRD FLOOR COLUMN (F3 C- 34) FACE B	Average "T1" : 42.4 Comp. Strength: 45.22 N/mm <sup>2</sup>										
THIRD FLOOR BEAM (F3 B-5) FACE A	42 42 42 38 38 38 46 38 44 42										38.65
THIRD FLOOR BEAM (F3 B-5) FACE B	Average "T1" : 41 Comp. Strength: 42.67 N/mm <sup>2</sup>										
THIRD FLOOR BEAM (F3 B-5) FACE A	46 46 42 44 44 42 44 40 40 42										38.65
THIRD FLOOR BEAM (F3 B-5) FACE B	Average "T1" : 43 Comp. Strength: 46.1 N/mm <sup>2</sup>										
THIRD FLOOR BEAM (F3 B-5) FACE A	42 44 42 46 38 40 52 48 48 46										38.65
THIRD FLOOR BEAM (F3 B-5) FACE B	Average "T1" : 44.6 Comp. Strength: 31.19 N/mm <sup>2</sup>										

TEST LOCATION ORCHID BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
FOURTH FLOOR COLUMN (F4 C- 31) FACE A	38 36 36 32 42 46 40 34 38 38										38.84
FOURTH FLOOR COLUMN (F4 C- 31) FACE B	Average "T2" : 38 Comp. Strength: 37.27 N/mm <sup>2</sup>										
FOURTH FLOOR COLUMN (F4 C- 31) FACE A	36 36 34 36 42 40 42 46 38 48										38.84
FOURTH FLOOR COLUMN (F4 C- 31) FACE B	Average "T2" : 39.8 Comp. Strength: 40.41 N/mm <sup>2</sup>										
FOURTH FLOOR BEAM (F4 B-6) FACE A	48 44 46 42 40 48 42 38 40 38										45.66
FOURTH FLOOR BEAM (F4 B-6) FACE B	Average "T2" : 42.6 Comp. Strength: 45.51 N/mm <sup>2</sup>										
FOURTH FLOOR BEAM (F4 B-6) FACE A	44 44 46 42 40 44 38 42 46 42										45.66
FOURTH FLOOR BEAM (F4 B-6) FACE B	Average "T2" : 42.8 Comp. Strength: 45.81 N/mm <sup>2</sup>										

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TEST LOCATION ORCHID BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
FIFTH FLOOR COLUMN (F5 C- 26) FACE A	38	42	46	52	40	42	42	44	42	40	46.55
Average "T3" : 42.8 Comp. Strength: 45.81 N/mm <sup>2</sup>											
FIFTH FLOOR COLUMN (F5 C- 26) FACE B	38	40	42	46	44	44	50	40	48	46	38.70
Average "T3" : 43.8 Comp. Strength: 47.28 N/mm <sup>2</sup>											
FIFTH FLOOR BEAM (F5 B-7) FACE A	42	42	46	3	42	38	38	38	42	42	38.70
Average "T3" : 37.3 Comp. Strength: 35.90 N/mm <sup>2</sup>											
FIFTH FLOOR BEAM (F5 B-7) FACE B	40	32	36	42	38	46	42	44	40	44	38.70
Average "T3" : 40.4 Comp. Strength: 41.49 N/mm <sup>2</sup>											

TEST LOCATION ORCHID BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
SIXTH FLOOR COLUMN (F6 C- 28) FACE A	42	40	44	42	46	42	38	44	40	48	44.29
Average "T4" : 42.6 Comp. Strength: 45.51 N/mm <sup>2</sup>											
SIXTH FLOOR COLUMN (F6 C- 28) FACE B	40	46	38	48	40	42	40	40	40	38	34.18
Average "T4" : 41.2 Comp. Strength: 43.06 N/mm <sup>2</sup>											
SIXTH FLOOR BEAM (F6 B-8) FACE A	38	40	36	36	38	38	36	34	38	38	34.18
Average "T4" : 37.2 Comp. Strength: 35.70 N/mm <sup>2</sup>											
SIXTH FLOOR BEAM (F6 B-8) FACE B	32	34	38	36	34	38	32	36	34	38	34.18
Average "T4" : 35.2 Comp. Strength: 32.66 N/mm <sup>2</sup>											

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TEST LOCATION ORCHID BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )	
SEVENTH FLOOR COLUMN (F7 C-48) FACE A	42 42 44 42 40 48 40 38 44 42										44.39	
SEVENTH FLOOR COLUMN (F7 C-48) FACE B	Average "T1" : 42.2 Comp. Strength: 44.92 N/mm <sup>2</sup>											
SEVENTH FLOOR BEAM (F7 B-9) FACE A	44 44 42 40 42 42 44 36 42 40										33.25	
SEVENTH FLOOR BEAM (F7 B-9) FACE B	Average "T1" : 41.6 Comp. Strength: 43.85 N/mm <sup>2</sup>											
SEVENTH FLOOR BEAM (F7 B-9) FACE A	36 34 38 36 38 34 32 32 38 34										33.25	
SEVENTH FLOOR BEAM (F7 B-9) FACE B	Average "T1" : 35.2 Comp. Strength: 32.66 N/mm <sup>2</sup>											
SEVENTH FLOOR BEAM (F7 B-9) FACE A	38 32 36 32 38 36 34 36 40 38											
SEVENTH FLOOR BEAM (F7 B-9) FACE B	Average "T1" : 36 Comp. Strength: 33.84 N/mm <sup>2</sup>											

TEST LOCATION ORCHID BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )	
EIGHT FLOOR COLUMN (F8 C- 53) FACE A	34 40 42 34 32 32 32 30 36 30										29.87	
EIGHT FLOOR COLUMN (F8 C- 53) FACE B	Average "T2" : 34.2 Comp. Strength: 30.80 N/mm <sup>2</sup>											
EIGHT FLOOR COLUMN (F8 C- 53) FACE B	36 36 30 36 32 34 34 30 30 32										29.92	
EIGHT FLOOR BEAM (F8 B-10) FACE A	Average "T2" : 33 Comp. Strength: 28.93 N/mm <sup>2</sup>											
EIGHT FLOOR BEAM (F8 B-10) FACE A	36 36 30 32 32 32 32 30 34 34										29.92	
EIGHT FLOOR BEAM (F8 B-10) FACE B	Average "T2" : 32.8 Comp. Strength: 28.64 N/mm <sup>2</sup>											
EIGHT FLOOR BEAM (F8 B-10) FACE B	32 36 34 30 36 34 34 40 34 34											
EIGHT FLOOR BEAM (F8 B-10) FACE B	Average "T2" : 34.4 Comp. Strength: 31.19 N/mm <sup>2</sup>											

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TEST LOCATION ORCHID BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
NINTH FLOOR COLUMN (F9 C- 65) FACE A	38	42	44	44	34	36	36	36	36	36	35.46
	Average "T3" : 38.2 Comp. Strength: 37.67 N/mm <sup>2</sup>										
NINTH FLOOR COLUMN (F9 C- 65) FACE B	36	34	38	32	36	34	34	38	38	36	35.02
	Average "T3" : 35.6 Comp. Strength: 33.25 N/mm <sup>2</sup>										
NINTH FLOOR BEAM (F9 B-11) FACE A	34	36	36	36	40	34	40	36	38	36	35.02
	Average "T3" : 36.6 Comp. Strength: 34.72 N/mm <sup>2</sup>										
NINTH FLOOR BEAM (F9 B-11) FACE B	36	38	36	38	40	38	36	36	36	36	35.02
	Average "T3" : 37 Comp. Strength: 35.31 N/mm <sup>2</sup>										

TEST LOCATION ORCHID BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
TENTH FLOOR COLUMN (F10 C- 14) FACE A	34	32	32	34	34	32	30	30	30	32	28.05
	Average "T4" : 32 Comp. Strength: 27.46 N/mm <sup>2</sup>										
TENTH FLOOR COLUMN (F10 C- 14) FACE B	32	32	34	32	40	34	32	32	30	30	36.29
	Average "T4" : 32.8 Comp. Strength: 28.64 N/mm <sup>2</sup>										
TENTH FLOOR BEAM (F10 B-12) FACE A	36	38	38	36	36	36	46	38	34	34	36.29
	Average "T4" : 37.2 Comp. Strength: 35.70 N/mm <sup>2</sup>										
TENTH FLOOR BEAM (F10 B-12) FACE B	34	32	32	38	40	38	42	48	36	38	36.29
	Average "T4" : 37.8 Comp. Strength: 36.88 N/mm <sup>2</sup>										

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TEST LOCATION ORCHID BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
THIRTEENTH FLOOR COLUMN (F13 C-63) FACE A	38 34 36 40 36 42 42 36 32 40										37.28
	Average "T3" : 37.6 Comp. Strength: 36.49 N/mm <sup>2</sup>										
THIRTEENTH FLOOR COLUMN (F13 C-63) FACE B	38 40 38 38 40 40 38 40 36 36										34.68
	Average "T3" : 38.4 Comp. Strength: 38.06 N/mm <sup>2</sup>										
THIRTEENTH FLOOR BEAM (F13 B-15) FACE A	36 38 36 36 36 34 32 34 40 34										34.68
	Average "T3" : 35.6 Comp. Strength: 33.25 N/mm <sup>2</sup>										
THIRTEENTH FLOOR BEAM (F13 B-15) FACE B	40 36 34 32 40 42 36 36 40 38										
	Average "T3" : 37.4 Comp. Strength: 36.1 N/mm <sup>2</sup>										

TEST LOCATION ORCHID BUILDING	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
FOURTEENTH FLOOR COLUMN (F14 C-70) FACE A	32 32 30 30 34 30 32 36 32 40										30.95
	Average "T4" : 32.8 Comp. Strength: 28.64 N/mm <sup>2</sup>										
FOURTEENTH FLOOR COLUMN (F14 C-70) FACE B	40 40 30 32 32 38 42 36 30 36										
	Average "T4" : 35.6 Comp. Strength: 33.25 N/mm <sup>2</sup>										
FOURTEENTH FLOOR BEAM (F14 B-16) FACE A	36 36 36 40 40 38 32 34 38 34										32.27
	Average "T4" : 36.4 Comp. Strength: 34.43 N/mm <sup>2</sup>										
FOURTEENTH FLOOR BEAM (F14 B-16) FACE B	36 36 30 34 34 36 34 34 32 32										
	Average "T4" : 33.8 Comp. Strength: 30.11 N/mm <sup>2</sup>										

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## ROSEWOOD BUILDING

ROSE WOOD BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )	
BASEMENT COLUMN (B C- 114) FACE A	42 40 40 46 40 42 44 40 42 38										40.95	
BASEMENT COLUMN (B C- 114) FACE B	Average "T1" : 41.4 Comp. Strength: 43.45 N/mm <sup>2</sup>											
	40 34 38 40 38 38 40 40 40 38											
	Average "T2" : 38.6 Comp. Strength: 38.45 N/mm <sup>2</sup>											

ROSE WOOD BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )	
GROUND FLOOR BEAM (GF B-1) FACE A	46 46 48 50 52 48 48 42 40 48										53.24	
GROUND FLOOR BEAM (GF B-1) FACE B	Average "T1" : 46.8 Comp. Strength: 52.45 N/mm <sup>2</sup>											
	40 44 42 48 50 50 52 48 54 46											
	Average "T2" : 47.4 Comp. Strength: 54.03 N/mm <sup>2</sup>											

ROSE WOOD BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )	
FIRST FLOOR COLUMN (F1 C- 42) FACE A	44 40 42 44 42 40 44 46 40 50										45.96	
FIRST FLOOR COLUMN (F1 C- 42) FACE B	Average "T1" : 43.2 Comp. Strength: 46.40 N/mm <sup>2</sup>											
	44 42 40 42 42 40 40 44 48 44											
	Average "T2" : 42.6 Comp. Strength: 45.51 N/mm <sup>2</sup>											

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ROSE WOOD BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
SECOND FLOOR BEAM (F2 B-2) FACE A	46	50	52	48	50	52	56	48	50	52	63.08
	Average "T1" : 50.4 Comp. Strength: <b>60.37</b> N/mm <sup>2</sup>										
SECOND FLOOR BEAM (F2 B-2) FACE B	56	56	52	50	56	52	48	50	56	54	63.08
	Average "T2" : 53 Comp. Strength: <b>65.79</b> N/mm <sup>2</sup>										

ROSE WOOD BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
THIRD FLOOR COLUMN (F3 C- 86) FACE A	50	48	54	46	46	48	44	44	44	48	55.08
	Average "T1" : 47.2 Comp. Strength: <b>53.51</b> N/mm <sup>2</sup>										
THIRD FLOOR COLUMN (F3 C- 86) FACE B	46	54	50	46	50	50	48	52	44	44	55.08
	Average "T2" : 48.4 Comp. Strength: <b>56.66</b> N/mm <sup>2</sup>										

ROSE WOOD BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
FOURTH FLOOR BEAM (F4 B-3) FACE A	48	50	46	42	46	48	46	48	46	48	51.73
	Average "T1" : 46.8 Comp. Strength: <b>52.45</b> N/mm <sup>2</sup>										
FOURTH FLOOR BEAM (F4 B-3) FACE B	40	46	46	48	50	48	48	40	44	50	51.73
	Average "T2" : 46 Comp. Strength: <b>51.01</b> N/mm <sup>2</sup>										

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## PODIUM BUILDING

PODIUM BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm <sup>2</sup> )
BASEMENT FLOOR BEAM (B B-1) FACE A	58	50	50	48	54	58	52	54	52	56	46.12
	Average "T1" : 53.2 Comp. Strength: <b>47.45</b> N/mm <sup>2</sup>										
BASEMENT FLOOR BEAM (B B-1) FACE B	54	52	52	50	48	52	40	46	48	46	46.12
	Average "T2" : 48.8 Comp. Strength: <b>44.78</b> N/mm <sup>2</sup>										
BASEMENT FLOOR COLUMN (B C-1) FACE A	36	36	34	32	30	36	32	34	30	40	31.00
	Average "T1" : 34 Comp. Strength: <b>30.41</b> N/mm <sup>2</sup>										
BASEMENT FLOOR COLUMN (B C-1) FACE B	38	32	36	38	32	32	36	32	34	36	31.00
	Average "T2" : 34.6 Comp. Strength: <b>31.58</b> N/mm <sup>2</sup>										
BASEMENT FLOOR COLUMN (B C-2) FACE A	30	30	30	32	30	30	30	36	32	36	24.62
	Average "T1" : 31.6 Comp. Strength: <b>26.68</b> N/mm <sup>2</sup>										
BASEMENT FLOOR COLUMN (B C-2) FACE B	30	30	30	28	28	30	28	28	28	30	24.62
	Average "T2" : 29 Comp. Strength: <b>22.56</b> N/mm <sup>2</sup>										

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## CLUB BUILDING

CLUB BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)	
BASEMENT COLUMN (B C-10) FACE A	36 30 30 30 28 30 34 34 40 34										28.64	
BASEMENT COLUMN (B C-10) FACE B	Average "T1" : 32.6 Comp. Strength: 28.35 N/mm^2											
BASEMENT COLUMN (B C-5) FACE A	36 34 36 30 32 34 36 30 30 32 36										31.39	
BASEMENT COLUMN (B C-5) FACE B	Average "T1" : 33.6 Comp. Strength: 28.93 N/mm^2											
	34 38 30 38 32 30 36 30 30 32 36											
	Average "T1" : 33.6 Comp. Strength: 29.82 N/mm^2											
	36 32 34 32 30 36 40 34 40 40 40											
	Average "T2" : 35.4 Comp. Strength: 32.96 N/mm^2											

CLUB BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)	
GROUND FLOOR COLUMN (GF C-29) FACE A	34 34 42 38 38 40 34 40 40 38										39.78	
GROUND FLOOR COLUMN (GF C-29) FACE B	Average "T1" : 37.8 Comp. Strength: 36.88 N/mm^2											
GROUND FLOOR COLUMN (GF C-32) FACE A	36 42 42 46 40 38 40 40 42 44										38.26	
GROUND FLOOR COLUMN (GF C-32) FACE B	Average "T2" : 41 Comp. Strength: 42.67 N/mm^2											
	36 40 36 36 40 36 38 40 40 38											
	Average "T1" : 38 Comp. Strength: 37.27 N/mm^2											
	40 40 42 42 38 36 38 36 38 40											
	Average "T2" : 39 Comp. Strength: 39.24 N/mm^2											

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CLUB BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
GROUND FLOOR COLUMN (GF C-26) FACE A	34	40	40	36	34	34	36	36	42	40	34.48
	Average "T1" : 37.2 Comp. Strength: <b>35.70</b> N/mm^2										
GROUND FLOOR COLUMN (GF C-26) FACE B	36	38	38	32	32	34	38	34	36	38	40.51
	Average "T2" : 35.6 Comp. Strength: <b>33.25</b> N/mm^2										
GROUND FLOOR BEAM (GF B-1) FACE A	38	40	32	36	36	40	44	36	46	44	40.51
	Average "T1" : 39.2 Comp. Strength: <b>39.53</b> N/mm^2										
GROUND FLOOR BEAM (GF B-1) FACE B	44	38	42	40	44	42	40	36	38	40	39.83
	Average "T2" : 40.4 Comp. Strength: <b>41.49</b> N/mm^2										
GROUND FLOOR BEAM (GF B-2) FACE A	34	40	46	38	36	40	38	40	40	40	39.83
	Average "T1" : 39.2 Comp. Strength: <b>39.53</b> N/mm^2										
GROUND FLOOR BEAM (GF B-2) FACE B	38	40	40	40	40	38	42	40	40	38	39.83
	Average "T2" : 39.6 Comp. Strength: <b>40.12</b> N/mm^2										

CLUB BUILDING TEST LOCATION	REBOUND HAMMER TEST READING HORIZONTALLY										AVERAGE STRENGTH (N/mm^2)
SECOND FLOOR COLUMN (F2 C-8) FACE A	20	24	26	22	26	22	24	26	20	28	15.65
	Average "T1" : 23.8 Comp. Strength: <b>14.91</b> N/mm^2										
SECOND FLOOR COLUMN (F2 C-8) FACE B	22	26	26	24	26	24	22	28	26	24	15.65
	Average "T2" : 24.8 Comp. Strength: <b>16.38</b> N/mm^2										

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### **J.3. CORE TEST RESULTS :**

The Core testing results on the sample extracted from the Beam & Slab of Existing Building are as given below :

### **TULIP BUILDING**

Samp. No.	Size of Sample			(KNS)	Measured Cylinder Strength N/mm <sup>2</sup>	Corr. Factor for Dia.	Corr. Factor for H-D Ratio of Core	corr. factor of size of aggregate	Corr. Cylinder Strength N/mm <sup>2</sup>	Equiv. Cube Strength N/mm <sup>2</sup>	Density of Concrete KN/m <sup>3</sup>
	D (MM)	L (MM)	Weight (gms)								
BASEMENT BEAM (B B-17)	68.0	130.52	1056	97.6	26.93	1.06	0.9913	1.00	28.29	35.37	21.90
FIFTH FLOOR BEAM (F5 B-25)	68.1	122.02	968	51.4	14.13	1.06	0.9772	1.00	14.64	18.30	21.40
NINTH FLOOR BEAM (F9 B-24)	67.9	117.12	915	57.2	15.81	1.06	0.9698	1.00	16.26	20.32	21.19
THIRTEENTH FLOOR BEAM (F13 B-15)	67.9	129.01	1036	51.7	14.28	1.06	0.9890	1.00	14.97	18.71	21.76
BASEMENT SLAB (B S-1)	67.9	118.91	983	104.3	28.79	1.06	0.9725	1.00	29.68	37.10	22.39
FIFTH FLOOR SLAB (F5 S-9)	67.9	116.52	892	34.6	9.55	1.06	0.9687	1.00	9.81	12.26	20.73
NINTH FLOOR SLAB (F9 S-8)	68.3	99.41	780	62.2	16.99	1.06	0.9401	1.00	16.93	21.16	21.02
THIRTEENTH FLOOR SLAB (F13 S-4)	67.9	113.61	878	35.0	9.68	1.06	0.9641	1.00	9.89	12.36	20.96

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## IRIS BUILDING

Samp. No.	Size of Sample			(KNS)	Measured Cylinder Strength N/mm <sup>2</sup>	Corr. Factor for Dia.	Corr. Factor for H-D Ratio of Core	corr. factor of size of aggregate	Corr. Cylinder Strength N/mm <sup>2</sup>	Equiv. Cube Strength N/mm <sup>2</sup>	Density of Concrete KN/m <sup>3</sup>
	D (MM)	L (MM)	Weight (gms)						N/mm <sup>2</sup>	N/mm <sup>2</sup>	KN/m <sup>3</sup>
GROUND FLOOR BEAM (GF B-2)	68.0	104.58	872	81.0	22.33	1.06	0.9492	1.00	22.47	28.08	22.55
FOURTH FLOOR BEAM (F4 B-19)	67.9	136.98	1059	66.7	18.41	1.06	1.0018	1.00	19.55	24.44	20.94
EIGHTH FLOOR BEAM (F8 B-10)	68.0	116.89	745	44.0	12.12	1.06	0.9690	1.00	12.45	15.56	17.22
TWELFTH FLOOR BEAM (F12 B-14)	68.0	137.09	1039	48.9	13.49	1.06	1.0019	1.00	14.33	17.91	20.51
GROUND FLOOR SLAB (GF S-2)	67.9	119.76	990	64.5	17.81	1.06	0.9740	1.00	18.39	22.99	22.39
FOURTH FLOOR SLAB (F4 S-4)	68.0	136.79	1143	64.4	17.74	1.06	1.0013	1.00	18.83	23.54	22.58
EIGHTH FLOOR SLAB (F8 S-6)	68.0	89.90	675	48.4	13.33	1.06	0.9254	1.00	13.08	16.35	20.29
TWELFTH FLOOR SLAB (F12 S-9)	68.0	112.87	907	49.6	13.68	1.06	0.9627	1.00	13.96	17.45	21.74

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## CASPIA BUILDING

Samp. No.	Size of Sample			(KNS)	Measured Cylinder Strength	Corr. Factor for Dia.	Corr. Factor for H-D Ratio of Core	corr. factor of size of aggregate	Corr. Cylinder Strength	Equiv. Cube Strength	Density of Concrete
	D (MM)	L (MM)	Weight (gms)		N/mm^2				N/mm^2	N/mm^2	KN/m^3
GROUND FLOOR BEAM (GF B-2)	68.0	110.25	894	57.5	15.82	1.06	0.9582	1.00	16.07	20.09	21.89
FOURTH FLOOR BEAM (F4 B-6)	68.1	124.00	961	62.0	17.06	1.06	0.9804	1.00	17.73	22.16	20.91
EIGHTH FLOOR BEAM (F8 B-10)	68.0	107.68	823	49.2	13.56	1.06	0.9542	1.00	13.72	17.15	20.67
TWELFTH FLOOR BEAM (F12 B-24)	68.0	97.17	756	72.3	19.91	1.06	0.9372	1.00	19.78	24.72	21.02
GROUND FLOOR SLAB (GF S-2)	68.1	90.50	729	64.4	17.71	1.06	0.9262	1.00	17.38	21.73	21.73
FOURTH FLOOR SLAB (F4 S-5)	68.0	93.23	729	44.5	12.26	1.06	0.9308	1.00	12.10	15.12	21.14
EIGHTH FLOOR SLAB (F8 S-7)	67.9	113.97	921	65.1	17.97	1.06	0.9645	1.00	18.37	22.96	21.88
TWELFTH FLOOR SLAB (F12 S-10)	68.0	89.06	788	58.0	16.00	1.06	0.9241	1.00	15.67	19.59	23.94

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## BEETEL BUILDING

Samp. No.	Size of Sample			(KNS)	Measured Cylinder Strength	Corr. Factor for Dia.	Corr. Factor for H-D Ratio of Core	corr. factor of size of aggregate	Corr. Cylinder Strength	Equiv. Cube Strength	Density of Concrete
	D (MM)	L (MM)	Weight (gms)								
GROUND FLOOR BEAM (GF B-2)	67.9	126.60	945	44.5	12.29	1.06	0.9851	1.00	12.84	16.05	20.23
FOURTH FLOOR BEAM (F4 B-6)	68.0	128.75	1029	43.9	12.08	1.06	0.9882	1.00	12.65	15.82	21.58
EIGHTH FLOOR BEAM (F8 B-20)	67.8	123.88	967	74.9	20.73	1.06	0.9809	1.00	21.56	26.95	21.20
TWELFTH FLOOR BEAM (F12 B-23)	68.0	76.50	622	59.1	16.31	1.06	0.9038	1.00	15.62	19.53	22.01
GROUND FLOOR SLAB (GF S-2)	67.9	105.34	798	43.7	12.09	1.06	0.9508	1.00	12.19	15.23	20.56
FOURTH FLOOR SLAB (F4 S-4)	68.0	121.96	1000	58.4	16.07	1.06	0.9772	1.00	16.65	20.81	22.14
EIGHTH FLOOR SLAB (F8 S-6)	67.9	89.86	680	62.8	17.35	1.06	0.9256	1.00	17.02	21.28	20.51
TWELFTH FLOOR SLAB (F12 S-8)	67.9	127.17	1050	63.5	17.52	1.06	0.9859	1.00	18.31	22.89	22.35

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## LOTUS BUILDING

Samp. No.	Size of Sample			Measured Cylinder Strength	Corr. Factor for Dia.	Corr. Factor for H-D Ratio of Core	corr. factor of size of aggregate	Corr. Cylinder Strength	Equiv. Cube Strength	Density of Concrete	
	D (MM)	L (MM)	Weight (gms)								
GROUND FLOOR BEAM (GF B-2)	68.1	116.40	905	65.3	17.92	1.06	0.9679	1.00	18.39	22.98	20.93
FOURTH FLOOR BEAM (F4 B-19)	68.0	127.79	991	49.1	13.51	1.06	0.9866	1.00	14.13	17.67	20.94
EIGHTH FLOOR BEAM (F8 B-10)	68.1	117.34	914	51.1	14.04	1.06	0.9696	1.00	14.43	18.04	21.00
TWELFTH FLOOR BEAM (F12 B-22)	68.0	107.69	877	77.3	21.32	1.06	0.9543	1.00	21.56	26.96	22.03
GROUND FLOOR SLAB (GF S-2)	68.1	113.93	861	64.8	17.80	1.06	0.9640	1.00	18.19	22.74	20.36
FOURTH FLOOR SLAB (F4 S-4)	68.2	104.50	808	75.5	20.71	1.06	0.9487	1.00	20.82	26.03	20.81
EIGHTH FLOOR SLAB (F8 S-6)	68.0	107.98	881	79.6	21.93	1.06	0.9547	1.00	22.20	27.75	22.06
TWELFTH FLOOR SLAB (F12 S-9)	68.2	119.74	944	80.0	21.94	1.06	0.9732	1.00	22.63	28.29	21.21

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## **ORCHID BUILDING**

Samp. No.	Equiv. Cube Strength	Size of Sample			(KNS)	Measured Cylinder Strength N/mm^2	Corr. Factor for Dia.	Corr. Factor for H-D Ratio of Core	corr. factor of size of aggregate	Corr. Cylinder Strength N/mm^2	Equiv. Cube Strength N/mm^2	Density of Concrete KN/m^3
		D (MM)	L (MM)	Weight (gms)								
BASEMENT BEAM (B B-1)	38.95(B-1)	68.0	130.66	1079	107.6	29.65	1.06	0.9914	1.00	31.16	38.95	22.32
FIFTH FLOOR BEAM (F5 B-24)	24.76(B-24)	68.0	124.59	960	69.2	19.04	1.06	0.9814	1.00	19.80	24.76	20.80
NINTH FLOOR BEAM (F9 B-25)	15.56(B-25)	68.0	115.83	861	44.0	12.14	1.06	0.9675	1.00	12.45	15.56	20.11
THIRTEENTH FLOOR BEAM (F13 B-15)	14.06(B-15)	68.0	98.96	735	45.4	12.50	1.06	0.9400	1.00	12.46	15.57	20.06
BASEMENT SLAB (B S-1)	18.30(S-1)	68.1	115.13	958	52.0	14.30	1.06	0.9661	1.00	14.64	18.30	22.45
FIFTH FLOOR SLAB (F5 S-5)	29.86(S-5)	68.1	109.65	888	85.6	23.55	1.06	0.9572	1.00	23.89	29.86	21.85
NINTH FLOOR SLAB (F9 S-3)	16.55(S-3)	68.1	112.92	905	47.2	12.98	1.06	0.9625	1.00	13.24	16.55	21.62
THIRTEENTH FLOOR SLAB (F13 S-13)	19.18(S-13)	68.0	111.79	909	54.7	15.06	1.06	0.9608	1.00	15.34	19.18	21.97

## **ROSEWOOD BUILDING**

Samp. No.	Size of Sample			(KNS)	Measured Cylinder Strength N/mm^2	Corr. Factor for Dia.	Corr. Factor for H-D Ratio of Core	corr. factor of size of aggregate	Corr. Cylinder Strength N/mm^2	Equiv. Cube Strength N/mm^2	Density of Concrete KN/m^3
	D (MM)	L (MM)	Weight (gms)								
FIRST FLOOR BEAM (F1 B-4)	67.8	134.75	1128	79.1	21.90	1.06	0.9985	1.00	23.18	28.97	22.73
THIRD FLOOR BEAM (F3 B-5)	67.9	128.28	1082	75.8	20.92	1.06	0.9877	1.00	21.90	27.38	22.84
GROUND FLOOR SLAB (GF S-1)	68.0	113.44	860	90.0	24.83	1.06	0.9636	1.00	25.36	31.70	20.52
FOURTH FLOOR SLAB (F4 S-2)	67.9	130.07	1083	78.1	21.58	1.06	0.9907	1.00	22.66	28.32	22.56

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## PODIUM BUILDING

Samp. No.	Size of Sample			(KNS)	Measured Cylinder Strength	Corr. Factor for Dia.	Corr. Factor for H-D Ratio of Core	corr. factor of size of aggregate	Corr. Cylinder Strength	Equiv. Cube Strength	Density of Concrete
	D (MM)	L (MM)	Weight (gms)						N/mm^2	N/mm^2	KN/m^3
BASEMENT BEAM (B B-1)	68.1	134.45	1129	84.0	23.10	1.06	0.9973	1.00	24.42	30.52	22.65

## CLUB BUILDING

Samp. No.	Size of Sample			(KNS)	Measured Cylinder Strength	Corr. Factor for Dia.	Corr. Factor for H-D Ratio of Core	corr. factor of size of aggregate	Corr. Cylinder Strength	Equiv. Cube Strength	Density of Concrete
	D (MM)	L (MM)	Weight (gms)						N/mm^2	N/mm^2	KN/m^3
GROUND FLOOR BEAM (GF B-2)	68.0	125.94	1028	52.9	14.56	1.06	0.9836	1.00	15.18	18.98	22.04
FIRST FLOOR SLAB (F1 S-2)	67.9	65.68	509	35.6	9.83	1.06	0.8864	1.00	9.24	11.55	21.00

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## **J.4. CARBONIZATION TEST RESULT**

### **TULIP BUILDING**

SL.NO	DATE	LOCATION	CARBONIZATION DEPTH(MM)
1	06-11-2023	BASEMENT SLAB (B S-1)	25
2	06-11-2023	BASEMENT BEAM (B B-17)	20
3	06-11-2023	BASEMENT COLUMN (B C-18)	28
4	06-11-2023	THIRD FLOOR COLUMN (F3 C-57)	18
5	06-11-2023	FIFTH FLOOR BEAM (F5 B-25)	27
6	06-11-2023	FIFTH FLOOR SLAB (F5 S-9)	35
7	06-11-2023	FIFTH FLOOR COLUMN (F5 C-42)	42
8	06-11-2023	SEVENTH FLOOR COLUMN (F7 C-95)	52
9	06-11-2023	NINTH FLOOR BEAM (F9 B-24)	40
10	06-11-2023	NINTH FLOOR SLAB (F9 S-8)	25
11	07-11-2023	NINTH FLOOR COLUMN (F9 C-96)	28
12	07-11-2023	ELEVENTH FLOOR COLUMN (F11 C-107)	44
13	07-11-2023	THIRTEENTH FLOOR BEAM (F13 B-15)	26
14	07-11-2023	THIRTEENTH FLOOR SLAB (F13 S-4)	30
15	07-11-2023	THIRTEENTH FLOOR COLUMN (F13 C-47)	34
16	07-11-2023	FOURTEENTH FLOOR COLUMN (F14 C-24/X)	32

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## **IRIS BUILDING**

SL.NO	DATE	LOCATION	CARBONIZATION DEPTH(MM)
1	28-10-2023	GROUND FLOOR COLUMN (GF C-7)	30
2	28-10-2023	GROUND FLOOR BEAM (GF B-2)	15
3	28-10-2023	GROUND FLOOR SLAB (GF S-2)	20
4	28-10-2023	SECOND FLOOR COLUMN (F2 C-18)	30
5	28-10-2023	FOURTH FLOOR COLUMN (F4 C-27)	27
6	28-10-2023	FOURTH FLOOR BEAM (F4 B-19)	30
7	28-10-2023	FOURTH FLOOR SLAB (F4 S-4)	20
8	28-10-2023	SIXTH FLOOR COLUMN (F6 C-35)	30
9	28-10-2023	EIGHTH FLOOR BEAM (F8 B-10)	50
10	30-10-2023	EIGHTH FLOOR SLAB (F8 S-6)	30
11	30-10-2023	EIGHTH FLOOR COLUMN (F8 C-49)	55
12	30-10-2023	TENTH FLOOR COLUMN (F10 C-62)	40
13	30-10-2023	TWELFTH FLOOR COLUMN (F12 C-9)	50
14	30-10-2023	TWELFTH FLOOR BEAM (F12 B-14)	45
15	30-10-2023	TWELFTH FLOOR SLAB (F12 S-9)	30
16	30-10-2023	FOURTEENTH FLOOR COLUMN (F14 C-12)	45

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## **CASPIA BUILDING**

SL.NO	DATE	LOCATION	CARBONIZATION DEPTH(MM)
1	30-10-2023	GROUND FLOOR COLUMN (GF C-74)	35
2	30-10-2023	GROUND FLOOR BEAM (GF B-2)	30
3	31-10-2023	GROUND FLOOR SLAB (GF S-2)	20
4	31-10-2023	SECOND FLOOR COLUMN (F2 C-53)	20
5	31-10-2023	FOURTH FLOOR SLAB (F4 S-5)	32
6	31-10-2023	FOURTH FLOOR COLUMN (F4 C-12)	35
7	31-10-2023	FOURTH FLOOR BEAM (F4 B-6)	30
8	31-10-2023	SIXTH FLOOR COLUMN (F6 C-30)	20
9	31-10-2023	EIGHTH FLOOR SLAB (F8 S-7)	24
10	31-10-2023	EIGHTH FLOOR COLUMN (F8 C-18)	22
11	01-11-2023	EIGHTH FLOOR BEAM (F8 B-10)	30
12	01-11-2023	TENTH FLOOR COLUMN (F10 C-8)	18
13	01-11-2023	TWELFTH FLOOR SLAB (F12 S-10)	20
14	01-11-2023	TWELFTH FLOOR COLUMN (F12 C-56)	40
15	01-11-2023	TWELFTH FLOOR BEAM (F12 B-24)	25
16	01-11-2023	FOURTEENTH FLOOR COLUMN (F14 C-79)	30

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## **BEETEL BUILDING**

SL.NO	DATE	LOCATION	CARBONIZATION DEPTH(MM)
1	01-11-2023	GROUND FLOOR COLUMN (GF C-75)	32
2	01-11-2023	GROUND FLOOR BEAM B-2	45
3	01-11-2023	GROUND FLOOR SLAB (GF S-2)	30
4	01-11-2023	SECOND FLOOR COLUMN (F2 C-100)	32
5	02-11-2023	FOURTH FLOOR COLUMN (F4 C-63)	19
6	02-11-2023	FOURTH FLOOR SLAB (F4 S-4)	30
7	02-11-2023	FOURTH FLOOR BEAM (F4 B-6)	35
8	02-11-2023	SIXTH FLOOR COLUMN (F6 C-76)	25
9	02-11-2023	EIGHTH FLOOR COLUMN (F8 C-55)	43
10	02-11-2023	EIGHTH FLOOR SLAB (F8 S-6)	30
11	02-11-2023	EIGHTH FLOOR BEAM (F8 B-20)	26
12	03-11-2023	TENTH FLOOR COLUMN (F10 C-21)	40
13	03-11-2023	TWELFTH FLOOR COLUMN (F12 C-108)	18
14	03-11-2023	TWELFTH FLOOR SLAB (F12 S-8)	22
15	03-11-2023	TWELFTH FLOOR BEAM (F12 B-23)	20
16	03-11-2023	FOURTEENTH FLOOR COLUMN (F14 C-13)	22

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## **LOTUS BUILDING**

<b>SL.NO</b>	<b>DATE</b>	<b>LOCATION</b>	<b>CARBONIZATION DEPTH(MM)</b>
1	03-11-2023	GROUND FLOOR COLUMN (GF C-42)	30
2	03-11-2023	GROUND FLOOR BEAM (GF B-2)	40
3	03-11-2023	GROUND FLOOR SLAB (GF S-2)	15
4	03-11-2023	SECOND FLOOR COLUMN (F2 C-22)	25
5	03-11-2023	FOURTH FLOOR COLUMN (F4 C-9)	27
6	03-11-2023	FOURTH FLOOR SLAB (F4 S-4)	30
7	04-11-2023	FOURTH FLOOR BEAM (F4 B-19)	36
8	04-11-2023	SIXTH FLOOR COLUMN (F6 C-32)	33
9	04-11-2023	EIGHTH FLOOR COLUMN (F8 C-60)	25
10	04-11-2023	EIGHTH FLOOR SLAB (F8 S-6)	18
11	04-11-2023	EIGHTH FLOOR BEAM (F8 B-10)	35
12	04-11-2023	TENTH FLOOR COLUMN (F10 C-45)	30
13	04-11-2023	TWELFTH FLOOR COLUMN (F12 C-55)	33
14	04-11-2023	TWELFTH FLOOR SLAB (F12 S-9)	25
15	04-11-2023	TWELFTH FLOOR BEAM (F12 B-22)	23
16	04-11-2023	FOURTEENTH FLOOR COLUMN (F14 C-61)	25

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## ORCHID BUILDING

SL.NO	DATE	LOCATION	CARBONIZATION DEPTH(MM)
1	05-11-2023	BASEMENT COLUMN (B C-45)	22
2	05-11-2023	BASEMENT BEAM (B B-1)	7
3	05-11-2023	BAEMENT SLAB (B S-1)	18
4	05-11-2023	FIRST FLOOR COLUMN (F1 C-13)	20
5	05-11-2023	FIFTH FLOOR COLUMN (F5 C-26)	25
6	05-11-2023	FIFTH FLOOR SLAB (F5 S-5)	15
7	05-11-2023	FIFTH FLOOR BEAM (F5 B-24)	26
8	05-11-2023	SEVENTH FLOOR COLUMN (F7 C-48)	18
9	05-11-2023	NINTH FLOOR COLUMN (F9 C-65)	32
10	05-11-2023	NINTH FLOOR BEAM (F9 B-25)	32
11	05-11-2023	NINTH FLOOR SLAB (F9 S-3)	33
12	05-11-2023	ELEVENTH FLOOR COLUMN (F11 C-66)	35
13	05-11-2023	THIRTEENTH FLOOR COLUMN (F13 C-63)	27
14	06-11-2023	THIRTEENTH FLOOR SLAB (F13 S-13)	22
15	06-11-2023	THIRTEENTH FLOOR BEAM (F13 B-15)	40
16	06-11-2023	FOURTEENTH FLOOR COLUMN (F14 C-70)	45

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## **ROSEWOOD BUILDING**

SL.NO	DATE	LOCATION	CARBONIZATION DEPTH(MM)
1	07-11-2023	BASEMENT COLUMN (B C-114)	30
2	07-11-2023	GROUND FLOOR SLAB (GF S-1)	18
3	07-11-2023	FIRST FLOOR BEAM (F1 B-4)	22
4	07-11-2023	SECOND FLOOR COLUMN (F2 C-112)	20
5	07-11-2023	THIRD FLOOR BEAM (F3 B-5)	15
6	08-11-2023	FOURTH FLOOR SLAB (F4 S-2)	17
7	08-11-2023	FOURTH FLOOR COLUMN (F4 C-56)	20

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## **PODIUM BUILDING**

SL.NO	DATE	LOCATION	CARBONIZATION DEPTH(MM)
1	08-11-2023	BASEMENT COLUMN (B C-1)	32
2	08-11-2023	BASEMENT COLUMN (B C-2)	48
3	08-11-2023	BASEMENT BEAM (B B-1)	15

## **CLUB BUILDING**

SL.NO	DATE	LOCATION	CARBONIZATION DEPTH(MM)
1	08-11-2023	GROUND FLOOR COLUMN (GF C-32)	36
2	08-11-2023	GROUND FLOOR COLUMN (GF C-26)	35
3	08-11-2023	GROUND FLOOR BEAM (GF B-2)	30
4	08-11-2023	FIRST FLOOR SLAB (F1 S-2)	55

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## **J.5 .HALF CELL POTENTIAL TEST RESULTS**

### **TULIP BUILDING**

#### **HALF CELL POTENTIAL METER TEST ((-)MV)**

S. NO.	LOCATION	HALF CELL METER READINGS									
1	<b>BASEMENT SLAB (B S-3)</b>	229	178	280	258	297	259	240	218	233	252
		244	226	235	200	225					
2	<b>GROUND FLOOR COLUMN (GF C-C)</b>	334	326	326	294	266	335	327	319	302	250
		313	301	239	300	305					
3	<b>FIRST FLOOR BEAM (F1 B-18)</b>	250	325	350	210	340	178	220	222	239	263
		260	275	283	263	214					
4	<b>SECOND FLOOR SLAB (F2 S-2)</b>	376	284	290	288	284	259	351	365	370	349
		375	371	382	396	369					
5	<b>THIRD FLOOR COLUMN (F3 C-58)</b>	280	212	284	281	207	237	254	237	290	259
		214	244	252	280	299	286				
6	<b>FOURTH FLOOR SLAB (F4 S-7)</b>	142	132	176	188	196	168	120	318	225	283
		237	288	294	248	239					
7	<b>FIFTH FLOOR BEAM (F5 B-21)</b>	242	288	253	288	308	250	234	278	323	216
		291	232	233	280	270					

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8	SIXTH FLOOR COLUMN (F6 C-71)	303	291	322	330	359	355	364	373	383	384
		375	390	374	280	254					
9	SEVENTH FLOOR BEAM (F7 B-19)	358	385	430	437	412	389	360	390	288	354
		323	332	312	394	352					
10	EIGHTH FLOOR SLAB (F8 S-6)	197	200	198	195	239	241	273	228	171	183
		173	226	202	184	185	177	189	240		
11	NINTH FLOOR BEAM (F9 B-22)	265	267	270	281	286	289	292	268	242	240
		313	264	288	293	264					
12	TENTH FLOOR COLUMN (F10 C-106)	307	268	243	227	278	255	225	299	261	351
		306	304	313	323	303					
13	ELEVENTH FLOOR BEAM (F11 B-20)	307	285	263	243	228	225	250	262	318	293
		376	341	327	253	302					
14	TWELFTH FLOOR COLUMN (F12 C-105)	307	285	263	243	228	225	250	262	318	293
		376	341	327	253	302					
15	THIRTEENTH FLOOR SLAB (F13 S-5)	174	176	189	185	158	183	191	194	187	198
		199	180	183	186	195					
15	FOURTEENTH FLOOR BEAM (F14 B-23)	263	265	271	270	220	285	189	244	243	242
		268	211	285	237	259					

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## IRIS BUILDING

HALF CELL POTENTIAL METER TEST ((-)MV)											
S. NO.	LOCATION	HALF CELL METER READINGS									
1	BASEMENT SLAB (B S-1)	252	249	210	203	115	271	358	392	352	321
		280	297	263	295	245					
2	GROUND FLOOR COLUMN (GF C-38)	207	172	197	148	152	155	123	132	162	140
		205	190	252	228	215					
3	FIRST FLOOR BEAM (F1 B-17)	266	186	256	178	240	260	178	155	229	250
		247	309	190	190	187					
4	SECOND FLOOR COLUMN (F2 C-5)	294	295	242	187	168	204	154	185	199	134
		188	217	218	160	172	237				
5	THIRD FLOOR BEAM (F3 B-18)	210	160	182	165	128	133	205	189	195	229
		128	251	226	252	220	249				
6	FOURTH FLOOR SLAB (F4 S-3)	320	290	185	220	289	184	299	303	290	317
		284	264	209	242	290					
7	FIFTH FLOOR BEAM (F5 B-20)	201	284	200	303	328	317	348	340	302	257
		195	270	318	322	323					

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8	SIXTH FLOOR COLUMN (F6 C-70)	235	229	230	215	230	229	231	227	223	218
		239	249	256	227	225					
9	SEVENTH FLOOR SLAB (F7 S-5)	254	231	225	234	253	228	232	218	221	277
		257	248	253	256	232					
10	EIGHTH FLOOR BEAM (F8 B-21)	340	377	389	382	397	371	367	382	383	399
		327	386	276	314	380					
11	NINETH FLOOR SLAB (F9 S-7)	201	198	145	216	205	193	216	168	162	158
		155	158	199	196	176					
12	TENTH FLOOR COLUMN (F10 C-14)	294	312	240	298	263	270	303	251	224	225
		242	288	295	203	284					
13	ELEVENTH FLOOR BEAM (F11 B-22)	306	284	330	316	308	316	322	302	340	337
		303	305	326	338	311					
14	TWELFTH FLOOR SLAB (F12 S-8)	158	142	156	124	166	207	152	188	170	174
		145	136	178	159	170					
15	THIRTEENTH FLOOR BEAM (F13 B-23)	396	302	282	256	278	245	267	362	329	274
		347	282	238	283	251	247				
16	FOURTEENTH FLOOR COLUMN (F14 C-79)	170	174	154	122	114	115	122	137	133	222
		195	197	197	175	137					

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## CASPIA BUILDING

HALF CELL POTENTIAL METER TEST ((-)MV)											
S. NO.	LOCATION	HALF CELL METER READINGS									
1	BASEMENT SLAB (B S-1)	317	293	249	216	243	258	360	237	366	358
		325	346	316	296	294	250	219	300		
2	GROUND FLOOR COLUMN (GF C-47)	285	340	332	284	313	286	289	236	254	294
		250	245	250	213	203					
3	FIRST FLOOR SLAB (F1 S-3)	235	240	260	230	245	259	263	261	270	275
		290	262	294	295	285					
4	SECOND FLOOR COLUMN (F2 C-76)	261	220	211	247	259	203	355	295	365	385
		350	275	260	285	289					
5	THIRD FLOOR BEAM (F3 B-20)	152	159	218	209	156	162	213	255	165	139
		159	161	146	156	149	219				
6	FOURTH FLOOR SLAB (F4 S-4)	230	211	197	190	192	196	216	190	173	269
		280	295	225	239	208					
7	FIFTH FLOOR COLUMN (F5 C-26)	276	189	256	302	272	214	173	190	175	198
		181	155	195	232	239					

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8	SIXTH FLOOR BEAM (F6 B-21)	269	255	294	293	286	230	252	262	229	204
		273	188	172	196	237					
9	SEVENTH FLOOR SLAB (F7 S-6)	305	288	296	311	305	288	272	290	361	357
		350	209	287	201	295					
10	EIGHTH FLOOR BEAM (F8 B-22)	336	314	327	345	330	361	322	330	360	341
		350	376	356	311	303					
11	NINTH FLOOR SLAB (F9 S-8)	203	214	222	309	291	224	202	218	213	204
		187	266	207	219	279					
12	TENTH FLOOR COLUMN (F10 C-56)	295	280	276	274	265	255	266	283	288	292
		306	290	267	284	288					
13	ELEVENTH FLOOR BEAM (F11 B-23)	260	150	163	188	300	158	155	345	170	164
		235	171	150	300	165					
14	TWELFTH FLOOR SLAB (F12 S-9)	230	251	242	182	165	244	132	155	118	124
		130	132	139	134	147					
15	THIRTEENTH FLOOR BEAM (F13 B-25)	270	264	278	259	212	254	310	263	284	249
		290	212	247	260	239					
16	FOURTEENTH FLOOR COLUMN (F14 C-19)	282	254	276	260	309	232	280	224	218	298
		260	288	276	275	259	232				

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## BEETEL BUILDING

HALF CELL POTENTIAL METER TEST ((-)MV)											
S. NO.	LOCATION	HALF CELL METER READINGS									
1	GROUND FLOOR COLUMN (GF C-61)	306	323	324	289	280	265	316	260	236	285
		291	267	232	295	244	321	320	254	220	
2	BASEMENT SLAB (B S-1)	228	175	253	250	289	214	197	227	294	228
		265	247	252	206	211	267	256	221	246	
3	FIRST FLOOR BEAM (F1 B-17)	292	279	264	287	310	278	272	257	201	287
		295	296	255	291	290	237	227	276		
4	SECOND FLOOR SLAB (F3 S-3)	183	177	203	226	192	228	241	238	226	210
		192	215	210	211	240	262	259	253	233	203
		240	234	218	209	230	210	233			
5	THIRD FLOOR COLUMN (F3 C-91)	322	287	292	261	255	256	260	266	265	272
		276	262	265	259	258	260	260	262	281	282
		263	270								
6	FOURTH FLOOR BEAM (F4 B-18)	224	232	230	241	244	226	227	203	207	235
		228	236	216	243	235	252	246	220	230	235
		252	248								

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7	FIFTH FLOOR COLUMN (F5 C-66)	250	291	290	256	260	272	278	275	274	251
		266	263	295	253	254	252	278	234	227	249
		250	246	242	231	244	270				
8	SIXTH FLOOR SLAB (F6 S-5)	162	184	178	150	156	214	209	233	215	221
		154	246	271	156	198	198	158	217	250	231
9	SEVENTH FLOOR BEAM (F7 B-19)	284	198	378	286	310	255	272	340	254	197
		212	342	249	220	244	200	261	254	370	346
		258	254	248	250						
10	EIGHTH FLOOR SLAB (F8 S-6)	285	238	242	244	220	247	260	276	246	207
		275	238	235	260	238	245	270	275	239	
11	NINTH FLOOR BEAM (F9 B-21)	224	229	214	230	290	280	273	221	262	215
		272									
12	TENTH FLOOR COLUMN (F10 C-13)	289	250	214	287	302	285	282	318	307	294
		269	272	271	291						
13	ELEVENTH FLOOR BEAM (F11 B-22)	298	317	342	348	301	285	287	295	296	288
		310	342	326	319	313	316	337	338		
14	TWELFTH FLOOR SLAB (F12 S-7)	280	233	231	239	244	251	215	220	230	212
		205	250	225	247	210					
15	THIRTEENTH FLOOR	355	376	320	462	418	353	450	413	400	412

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	<b>BEAM (F13 B-24)</b>	414	344	350	330	340	345	373	369	390	419
		420									
16	<b>FOURTEENTH FLOOR COLUMN (F14 C-31)</b>	316	270	245	283	276	320	289	362	350	268
		354	297	256	250	290	280	257			

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HALF CELL POTENTIAL METER TEST ((-)MV)											
S. NO.	LOCATION	HALF CELL METER READINGS									
1	BASEMENT SLAB (B S-1)	271	240	275	252	287	260	230	275	283	247
		218	230	260	285	278	281	270	281	271	
2	GROUND FLOOR COLUMN (GF C-52)	386	365	300	353	262	363	427	337	385	308
		320	365	386	376	356	339	330	408	367	
3	FIRST FLOOR BEAM (F1 B-17)	298	299	250	292	312	346	334	273	230	283
		390	254	255	243	232	313	303	340	305	295
		361									
4	SECOND FLOOR SLAB (F2 S-3)	192	162	148	130	204	187	195	187	189	164
		191	195	190	192	189	176	233	229	206	209
		222	224	180	180	222					
5	THIRD FLOOR COLUMN (F3 C-X)	231	230	325	347	377	263	357	356	366	302
		330	361	264	317	374	346	336	333		
6	FOURTH FLOOR BEAM (F4 B-18)	320	305	294	291	296	301	298	318	335	343
		329	327	305	324	345	320	335	327	322	318
		315	307	300	307	328					
7	FIFTH FLOOR SLAB (F5 S-5)	324	328	329	320	328	330	330	301	309	320
		340	300	320							
8	SIXTH FLOOR COLUMN (F6 C-9)	317	319	321	273	278	313	236	232	240	250
		236	210	205	234	277	300	301	280	289	
9	SEVENTH FLOOR BEAM (F7 B-20)	225	253	264	248	290	322	330	298	258	260
		247	258	241	202	235	244	289	310	314	320

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10	EIGHTH FLOOR SLAB (F8 S-7)	430	417	289	287	310	250	226	314	350	200
		428	422	432	325	284	234	295	310	324	306
11	NINTH FLOOR COLUMN (F9 C-74)	296	289	301	288	257	312	313	309	296	289
		266	288	257	250	301	247	250	287	289	262
		255	257	255	254						
12	TENTH FLOOR BEAM (F10 B-21)	264	242	218	230	254	292	256	260	282	277
		283	262	237	213	245	249	275			
13	ELEVENTH FLOOR SLAB (F11 S-8)	300	329	340	326	325	320	329	326	327	330
		320	301	314	318	320	325	342	341	348	
14	TWELFTH FLOOR COLUMN (F12 C- 67)	255	266	261	264	254	257	276	287	318	307
		299	282	264	260	283	287	281			
15	FIFTEENTH FLOOR BEAM (F13 B-23)	422	422	472	299	298	288	285	277	209	254
		273	265	283	230	360	252	265	301	326	347
		265	268	270	329						
16	FOURTEENTH FLOOR SLAB (F14 S-10)	213	201	250	257	245	212	252	258	270	280
		250	200	201	216						

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HALF CELL POTENTIAL METER TEST ((-)MV)											
S. NO.	LOCATION	HALF CELL METER READINGS									
1	BASEMENT COLUMN (B C-42)	270	262	274	268	205	219	270	284	213	206
		235	285	266	265	207					
2	GROUND FLOOR BEAM (GF B-17)	335	330	393	390	325	319	252	222	320	374
		380	390	377	368	350					
3	FIRST FLOOR SLAB (F1 S-2)	140	150	125	117	128	110	146	114	102	115
		152	128	166	120	105	107				
4	SECOND FLOOR COLUMN (F2 C-6)	208	220	232	284	339	350	273	241	228	262
		264	252	315	314	326	240				
5	THIRD FLOOR BEAM (F3 B-8)	310	256	269	359	182	265	249	207	263	248
		244	189	212	224	301	211				
6	FOURTH FLOOR SLAB (F4 S-4)	310	256	269	359	182	265	249	207	363	248
		244	189	212	224	301	211				
7	FIFTH FLOOR BEAM (F5 B-19)	224	265	232	238	263	210	270	257	265	396
		255	238	270	260	249	258				
8	SIXTH FLOOR SLAB (F6 S-6)	248	275	247	180	175	237	232	229	279	149
		280	194	287	253	221					

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9	SEVENTH FLOOR BEAM (F7 B-20)	238	252	244	213	233	268	238	270	162	165
		134	155	168	159	151					
10	EIGHTH FLOOR BEAM (F8 B-21)	218	211	140	160	187	155	166	168	157	177
		150	222	226	214	190					
11	NINTH FLOOR SLAB (F9 S-9)	145	151	162	160	175	165	262	145	165	262
		145	144	170	165	151	138	195	173		
12	TENTH FLOOR COLUMN (F10 C-82)	178	169	158	150	240	160	162	190	234	193
		223	208	214	209	187					
13	ELEVENTH FLOOR BEAM (F11 B-22)	176	166	156	182	329	374	310	307	278	345
		316	203	305	280	278	374				
14	TWELVETH FLOOR SLAB (F12 S-12)	278	308	256	181	148	163	150	231	159	181
		185	164	186	300	288					
15	THIRTEENTH FLOOR BEAM (F13 B-23)	154	118	135	118	164	154	140	105	104	109
		170	153	125	130	151					
16	FOURTEENTH FLOOR COLUMN (F14 C-48)	158	118	154	188	167	175	183	120	166	178
		184	129	145	155	218					

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## ROSEWOOD BUILDING

HALF CELL POTENTIAL METER TEST ((-)MV)											
S. NO.	LOCATION	HALF CELL METER READINGS									
1	BASEMENT COLUMN (B C-116)	208	291	208	145	249	227	178	214	168	187
		180	146	198	173	172					
2	BASEMENT COLUMN (B C-59)	240	232	240	234	228	217	240	258	265	270
		259	232	174	264	270					
3	GROUND FLOOR SLAB (GF S-3)	285	268	274	263	289	203	242	265	241	292
		273	239	307	319	285					
4	FIRST FLOOR BEAM (F1 B-4)	318	301	248	268	212	275	272	303	306	281
		307	280	268	259	332					
5	THIRD FLOOR BEAM (F3 B-2)	238	224	186	202	246	147	162	224	207	168
		244	260	320	192	132	258				
6	THIRD FLOOR SLAB (F3 S-4)	244	168	171	176	201	235	122	185	207	150
		124	265	253	191	139					
7	FIFTH FLOOR COLUMN (F5 C-41)	230	228	260	237	240	249	197	202	220	242
		218	224	203	202	232					

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## **PODIUM BUILDING**

HALF CELL POTENTIAL METER TEST ((-)MV)											
S. NO.	LOCATION	HALF CELL METER READINGS									
1	BASEMENT BEAM (B B-1)	291	287	276	273	260	240	262	265	263	260
		255	256	248	242	247					
2	BASEMENT SLAB (B S-1)	142	144	144	138	165	148	140	180	146	140
		180	146	140	165	170	189	191	153	148	155
		144									

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## **CLUB BUILDING**

### **HALF CELL POTENTIAL METER TEST ((-)MV)**

S. NO.	LOCATION	HALF CELL METER READINGS									
1	<b>GROUND FLOOR COLUMN (GF C-32)</b>	346	268	240	195	223	197	204	264	200	171
		266	202	189	192	217					
2	<b>GROUND FLOOR SLAB (GF S-1)</b>	225	158	148	195	184	162	216	236	208	152
		243	205	194	221	238					
3	<b>GROUND FLOOR BEAM (GF B-2)</b>	260	268	337	226	259	262	321	322	231	225
		238	233	238	256	262					
4	<b>SECOND FLOOR COLUMN (F2 C-8)</b>	313	332	350	348	362	357	357	350	280	248
		348	248	292	326	334	357	350			

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## J.6 COVER METER TEST RESULTS

### TULIP BUILDING

COVER METER TEST													
S. NO.	LOCATION	COVER DEPTH (MM)											AVERAGE
1	BASEMENT BEAM (B B-1)	d'	30	16	34								26.67
		d''	49	29	48	34	30	34					37.33
2	GROUND FLOOR COLUMN (GF C-15)	d'	72	69	71	80	68	51	43	21	26		55.67
		d''	72	76	51	61							65.00
3	FIRST FLOOR BEAM (F1 B-3)	d'	11	28	12								17.00
		d''	56	42	41	44							45.75
4	SECOND FLOOR COLUMN (F2 C-29)	d'	54	24	46	22	57	66	21	18			38.50
		d''	54	36	59								49.67
5	THIRD FLOOR BEAM (F3 B-5)	d'	32	38	40								36.67
		d''	49	27	15	47							34.50
6	FOURTH FLOOR COLUMN (F4 C-78)	d'	87	64	65	59	63	56	62	47	35	32	57.00
		d''	75	74									74.50
7	FIFTH FLOOR BEAM (F5 B-7)	d'	40	45	47								44.00
		d''	45	40	42	32							39.75
8	SIXTH FLOOR COLUMN (F6)	d'	18	24	41	30	42	35					31.67

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	C-68)	d"	35	46	49									43.33
9	SEVENTH FLOOR BEAM (F7 B-9)	d'	13	5	7									8.33
		d"	31	34	32	36								33.25
10	EIGHTH FLOOR COLUMN (F8 C-86)	d'	42	58	53	59	76	60	34	22	40	40		48.40
		d"	25	56										40.50
11	NINTH FLOOR BEAM (F9 B-11)	d'	54	40	32									42.00
		d"	49	48	49	54								50.00
12	TENTH FLOOR COLUMN (F10 C-99)	d'	45	50	56	54	65	78	99	62	50	52	95	67.18
			97	93	61	47	66	72						
		d"	78	74	70									74.00
13	ELEVENTH FLOOR BEAM (F11 B-13)	d'	7	18	25									16.67
		d"	48	52	49	34								45.75
14	TWELFTH FLOOR COLUMN (F12 C-56)	d'	51	51	8	44	62	48	46	47	51			45.33
		d"	52	66										59.00
15	THIRTEENTH FLOOR BEAM (F13 B-15)	d'	16	16	18									16.67
		d"	16	27	30	27								25.00
16	FOURTEENTH FLOOR COLUMN (F14 C-13)	d'	29	36	32	35	42	54	54					40.29
		d"	57	57										57.00

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## IRIS BUILDING

COVER METER TEST (mm)														
S. NO.	LOCATION	COVER METER READINGS												AVERAGE
1	BASEMENT COLUMN (B B-1)	d'	31	45	46									40.67
		d"	37	40	36	33								36.50
2	GROUND FLOOR COLUMN (GF C-7)	d'	57	63	74	79	80	95	45					70.43
		d"	45	66	55									55.33
3	FIRST FLOOR BEAM (F1 B-3)	d'	25	20	20									21.67
		d"	54	52	53	41								50.00
4	SECOND FLOOR COLUMN (F2 C-9)	d'	40	41	48	51	78	20	61	40	39	63	62	55.00
			95	96	80	39	27							
		d"	55	56	40									50.33
5	THIRD FLOOR BEAM (F3 B-5)	d'	16	18	16									16.67
		d"	49	45	32	35								40.25
6	FOURTH FLOOR COLUMN (F4 C-60)	d'	44	58	65	82	87	61	44					63.00
		d"	44	40	45									43.00
7	FIFTH FLOOR BEAM (F5 B-7)	d'	20	20	18									19.33
		d"	24	25	22	32								25.75
8	SIXTH FLOOR COLUMN (F6 C-70)	d'	47	49	48	53	47	41	40	44				46.13
		d"	48	35	40									41.00



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9	SEVENTH FLOOR BEAM (F7 B-9)	d'	25	24	35									28.00
		d''	50	59	54									54.33
10	EIGHTH FLOOR COLUMN (F8 C-49)	d'	65	74	69	77	50	76	67	70				68.50
		d''	44	48	44									45.33
11	NINTH FLOOR BEAM (F9 B-11)	d'	18	4	6									9.33
		d''	47	26	44	50								41.75
12	TENTH FLOOR COLUMN (F10 C-36)	d'	60	47	50	40	54	32	34	60	40	45	42	46.29
		d''	49	43	52									31.33
13	ELEVENTH FLOOR BEAM (F11 B-13)	d'	14	15	20									16.33
		d''	18	15	21	32								21.50
14	TWELFTH FLOOR COLUMN (F12 C-9)	d'	50	42	38	33	48	28	24					37.57
		d''	29	38	32									33.00
15	THIRTEENTH FLOOR BEAM (F13 B-15)	d'	16	18	25									19.67
		d''	37	58	42	61								49.50
16	FOURTEENTH FLOOR COLUMN (F14 C-48) FIRST TRAIL	d'	41	42	46	30	29	30	40					36.86
		d''	38	42	40									40.00

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## CASPIA BUILDING

COVER METER TEST													
S. NO.	LOCATION	COVER DEPTH (MM)											AVERAGE
1	<b>BASEMENT BEAM (B-B-1)</b>	d'	32	20	25								25.67
		d''	26	31	31	32							30.00
2	<b>GROUND FLOOR COLUMN (GF C-74)</b>	d'	68	82	100	109	125	102	89				96.43
		d''	57	49									53.00
3	<b>FIRST FLOOR BEAM (F1 B-3)</b>	d'	28	20	34								27.33
		d''	38	24	37	37							34.00
4	<b>SECOND FLOOR COLUMN (F2 C-53)</b>	d'	28	30	59	36	29	32	33	37			35.50
		d''	45	45	34								32.17
5	<b>THIRD FLOOR BEAM (F3 B-5)</b>	d'	27	14	28								23.00
		d''	47	44	42	42							43.75
6	<b>FOURTH FLOOR COLUMN (F4 C-12)</b>	d'	47	55	67	62	62	56	60	73			60.25
		d''	52	66	73								63.67
7	<b>FIFTH FLOOR BEAM (F5 B-7)</b>	d'	25	13	23								20.33
		d''	21	24	31	30							26.50
8	<b>SIXTH FLOOR COLUMN (F6 C-30)</b>	d'	49	35	34	44	67	14	4				35.29
		d''	29	45	46								40.00

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9	SEVENTH FLOOR BEAM (F7 B-9)	d'	45	53	72									56.67
		d''	56	15	50	84	79							56.80
10	EIGHTH FLOOR COLUMN (F8 C-18)	d'	11	22	13	20	17	37	50	30				25.00
		d''	35	28										31.50
11	NINTH FLOOR BEAM (F9 B-11)	d'	23	26	26									25.00
		d''	28	20	28	10								21.50
12	TENTH FLOOR COLUMN (F10 C-8)	d'	57	37	59	72	60	46	38	34	3 4	4 2	20	42.08
			24	24										
		d''	28	37	36									33.67
13	ELEVENTH FLOOR BEAM (F11 B-13)	d'	8	10	9									9.00
		d''	40	45	43	44								43.00
14	TWELFTH FLOOR COLUMN (F12 C-56)	d'	43	69	75	62	8	36	28	35				44.50
		d''	40	41	36									40.50
15	THIRTEENTH FLOOR BEAM (F13 B-15)	d'	21	20	31									24.00
		d''	19	29	25	31	30	30						26.00
16	FOURTEENTH FLOOR COLUMN (F14 C-79)	d'	43	69	75	62	8	36	28	30				43.88
		d''	50	64	81									65.00

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## BEETEL BUILDING

### COVER METER TEST

S. NO.	LOCATION	COVER DEPTH (MM)														AVERAGE
1	BASEMENT BEAM (B B-1)	d'	17	12	19											16.00
		d"	54	55	64	51										56.00
2	GROUND FLOOR COLUMN (GF C-75)	d'	69	61	52	72	59	37								58.33
		d"	58	47	50											51.67
3	FIRST FLOOR BEAM (F1 B-3)	d'	13	16	20											16.33
		d"	25	19	13	21										19.50
4	SECOND FLOOR COLUMN (F2 C-100)	d'	50	56	79	47	80	16	14	16	20	50	51	75	50	47.43
		d"	46	50	30											42.00
5	THIRD FLOOR BEAM (F3 B-5)	d'	16	11	15											14.00
		d"	42	26	24	25										29.25
6	FOURTH FLOOR COLUMN (F4 C-63)	d'	40	35	59	40	22	21	24	20	19	15	20	20		27.92
		d"	37	44	43											41.33
7	FIFTH FLOOR BEAM (F5 B-7)	d'	15	24	24	26										22.25
		d"	26	28	30	30	28									28.40
8	SIXTH FLOOR COLUMN (F6 C-76)	d'	57	50	45	54	51	54	44	53	40	50				49.80
		d"	40	40	50											43.33

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9	SEVENTH FLOOR BEAM (F7 B-9)	d'	25	25	30											26.67
		d''	26	26	24	25										25.25
10	EIGHTH FLOOR COLUMN (F8 C-55)	d'	25	25	26	40	40	25	30							30.14
		d''	26	25	25											25.33
11	NINTH FLOOR BEAM (F9 B-11)	d'	10	11	17											12.67
		d''	25	22	28	25										25.00
12	TENTH FLOOR COLUMN (F10 C-21)	d'	40	50	45	40	55	60	55	57	65	60	50	50	45	4/7 50.94
			48	48												
		d''	65	70	50											61.67
13	ELEVENTH FLOOR BEAM (F11 B-13)	d'	20	30	30											26.67
		d''	42	40	40	30										38.00
14	TWELFTH FLOOR COLUMN (F12 C-108)	d'	55	40	40	49	45	55	55							48.43
		d''	40	30	30											33.33
15	THIRTEENTH FLOOR BEAM (F13 B-15)	d'	25	30	25											26.67
		d''	25	25	20	21										22.75
16	FOURTEENTH FLOOR COLUMN (F14 C-48)	d'	45	34	35	39	31	36	41							37.29
		d''	90	80												85.00

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## LOTUS BUILDING

COVER METER TEST												
S. NO.	LOCATION	COVER DEPTH (MM)										AVERAGE
1	BASEMENT BEAM (B B-1)	d'	38	41	24							34.33
		d"	21	22	26	34						25.75
2	GROUND FLOOR COLUMN (GF C-42)	d'	57	54	47	34	40	32	16	21		37.63
		d"	32	34	41							35.67
3	FIRST FLOOR BEAM (F1 B-3)	d'	27	22	13							20.67
		d"	49	34	36	34						38.25
4	SECOND FLOOR COLUMN (F2 C-22)	d'	47	46	40	42	54	62	46			48.14
		d"	36	38	38							32.33
5	THIRD FLOOR BEAM (F3 B-5)	d'	27	22	33							27.33
		d"	35	30	38	35						34.50
6	FOURTH FLOOR COLUMN (F4 C-9)	d'	41	50	38	48	46	49	54			46.57
		d"	50	66	45							53.67

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7	FIFTH FLOOR BEAM (F5 B-7)	d'	20	16	18										18.00
		d"	27	32	38	31									32.00
8	SIXTH FLOOR COLUMN (F6 C-32)	d'	25	26	41	69	60	60	71	81					54.13
		d"	35	46	34										38.33
9	SEVENTH FLOOR BEAM (F7 B-9)	d'	24	20	24										22.67
		d"	40	40	42	30									38.00
10	EIGHTH FLOOR COLUMN (F8 C-60)	d'	40	40	42	42	40	35	40	45	50	55			42.90
		d"	53	53	50										52.00
11	NINTH FLOOR BEAM (F9 B-11)	d'	23	15	22										20.00
		d"	30	32	30	40									33.00
12	TENTH FLOOR COLUMN (F10 C-45)	d'	54	56	54	52	50	56	55	56	57	60	60		57.79
			64	70	65										
		d"	55	55	40										50.00
13	ELEVENTH FLOOR BEAM (F11 B-13)	d'	27	27	11										21.67
		d"	44	45	39	45									43.25
14	TWELFTH FLOOR COLUMN (F12 C-67)	d'	34	45	32	36	30	33							35.00
		d"	40	42	46										42.67
15	THIRTEENTH FLOOR BEAM (F13 B-15)	d'	20	25	30										25.00
		d"	27	35	31	27									30.00

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16	FOURTEENTH FLOOR COLUMN (F14 C-61)	d'	65	102	113	107	108	108	123	87	65			97.56
		d''	76	63	69									69.33

## ORCHID BUILDING

COVER METER TEST														
S. NO.	LOCATION	COVER DEPTH (MM)												AVERAGE
1	BASEMENT BEAM (B B-1) FIRST TRIAL	d'	20	16	19									18.33
		d''	67	62	55	55								59.75
	BASEMENT BEAM (B B-1) SECOND TRIAL	d'	1	6	7									4.67
		d''	30	30	27	20								26.75
2	GROUND FLOOR COLUMN (GF C-27)	d'	45	60	72	50	52	77	44	49	41			54.44
		d''	67	54										60.50
3	FIRST FLOOR BEAM (F1 B-3)	d'	17	17	9									14.33
		d''	28	35	24	25								28.00
4	SECOND FLOOR COLUMN (F2 C-9)	d'	47	67	66	55	56	50	68	44				45.94
			39	39	30	43	42	35	25	29				
		d''	41	67	46									34.67
5	THIRD FLOOR BEAM (F3 B-5)	d'	28	11	15									18.00
		d''	29	24	27	20								25.00

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6	FOURTH FLOOR COLUMN (F4 C-31)	<b>d'</b>	69	63	58	30	30	73	34	35	36	31	<b>44.05</b>
			35	35	39	40	30	58	30	58	53		
		<b>d''</b>	38	28	38								
7	FIFTH FLOOR BEAM (F5 B-7)	<b>d'</b>	15	11	14								<b>13.33</b>
		<b>d''</b>	24	20	20	19							
8	SIXTH FLOOR SLAB (F6 S-5)	<b>d'</b>	38	28	38	19	19	20	14	17			<b>24.13</b>
		<b>d''</b>	35	46	34								
9	SEVENTH FLOOR BEAM (F7 B-9)	<b>d'</b>	9	20	17								<b>15.33</b>
		<b>d''</b>	29	32	30	29							
10	EIGHTH FLOOR COLUMN (F8 C-53)	<b>d'</b>	42	49	54	54	31	38	38	43	49	21	<b>39.64</b>
		<b>d''</b>	43	50	50								
11	NINTH FLOOR BEAM (F9 B-11)	<b>d'</b>	10	11	17								<b>12.67</b>
		<b>d''</b>	25	22	28	25							
12	TENTH FLOOR COLUMN (F10 C-14)	<b>d'</b>	62	35	42	56	34	32	30	36	34	31	<b>33.94</b>
			32	29	27	29	29	24	23	26			
		<b>d''</b>	24	24	26								<b>24.67</b>
13	ELEVENTH FLOOR BEAM (F11 B-13)	<b>d'</b>	17	17	30								<b>21.33</b>
		<b>d''</b>	27	20	27	8							

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14	TWELFTH FLOOR COLUMN (F12 C-67)	d'	33	36	47	44	52	60	20	37	36		40.56
		d''	30	58									44.00
15	THIRTEENTH FLOOR BEAM (F13 B-15)	d'	21	8	29								19.33
		d''	30	36	20	43							32.25
16	FOURTEENTH FLOOR COLUMN (F14 C-48) FIRST TRIAL	d'	17	14	17	21	27	24	26	42	24	28	
			38	54	22	35							27.79
	FOURTEENTH FLOOR COLUMN (F14 C-70) SECOND TRIAL	d''	24	8									16.00
		d'	17	16	24	23	40	36	32	50			29.75
		d''	32	65									48.50

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### ROSEWOOD BUILDING

COVER METER TEST											
S. NO.	LOCATION	COVER DEPTH (MM)									AVERAGE
1	BASEMENT COLUMN (B C-114)	d'	60	62	72	69	62	57	58		62.86
		d"	48	59	59						55.33
2	GROUND FLOOR BEAM (GF B-1)	d'	17	28	35	40					30.00
		d"	27	32	34						31.00
3	FIRST FLOOR COLUMN (F1 C-42)	d'	23	26	33	25	32	48	60		35.29
		d"	35	33	32						33.33
4	SECOND FLOOR BEAM (F2 B-2)	d'	37	32	33						34.00
		d"	40	35	35	32					35.50
5	THIRD FLOOR COLUMN (F3 C-86)	d'	30	33	40	42	56	59			43.33
		d"	75	79	75	20					62.25
6	FOURTH FLOOR BEAM (F4 B-3)	d'	34	32	28	29					30.75
		d"	12	10	12	20					13.50
7	FIFTH FLOOR COLUMN(F5 C-34)	d'	52	45	43	46	42	49	49		46.57
		d"	54	49							51.50

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## PODIUM BUILDING

COVER METER TEST												
S. NO.	LOCATION	COVER DEPTH (MM)										AVERAGE
1	BASEMENT COLUMN (B C-1)	d'	48	45	50	63						51.50
		d''	48	52	46	48						48.50
2	BASEMENT BEAM (B B-1)	d'	45	39	44	41						42.25
		d''	34	42	32	35						35.75

## CLUB BUILDING

COVER METER TEST													
S. NO.	LOCATION	COVER DEPTH (MM)										AVERAGE	
1	BASEMENT COLUMN (B C-5)	d'	38	34	27	23	24						29.20
		d''	56	57									56.50
2	GROUND FLOOR BEAM (GF B-1)	d'	23	23	27								24.33
		d''	57	61	58								58.67
2	FIRST FLOOR COLUMN (F1 C-8)	d'	20	20	18	38	51	19	17				26.14
		d''	19	15	18								17.33

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## K. CONCLUDING REMARKS :

**As per the NDT test results carried out on the different blocks of the building,**

**In “Tulip Block”, As per the Ultrasonic Pulse velocity results, the Quality of concrete in the Basement and 7<sup>th</sup> floor columns along with beam of 1<sup>st</sup>, 2<sup>nd</sup>, 4th & 7<sup>th</sup> Floor of the building is found to be of Doubtful concrete and as per the Core test results, the quality of concrete in 5<sup>th</sup> & 13<sup>th</sup> floor roof slab is also found to be less 15 N/sqmm, therefore the same need to be further investigated by extraction more number of sample from the concern floors. As per the half cell potential meter test results, there is 10 to 50% Chance of Corrosion Activity in all floors.**

**In “IRIS Block”, As per the Ultrasonic Pulse velocity results, the Quality of concrete in the 4th Columns and roof Beam is found to be of Doubtful concrete therefore the same need to be further investigated by extraction more number of sample from the concern floors. As per the half cell potential meter test results, there is 15% Chance of Corrosion Activity in all floors.**

**In “CASPIA Block”, As per the Ultrasonic Pulse velocity results, the Quality of concrete in the 2<sup>nd</sup>, 7<sup>th</sup> & 14<sup>th</sup> floor Columns along with beam of , 2th , 64th & 14<sup>th</sup> Floor of the building is found to be of Doubtful concrete, therefore the same need to be further investigated by extraction more number of sample from the concern floors. As per the half cell potential meter test results, there is 20% Chance of Corrosion Activity in all floors.**

**In “BEETEL Block”, As per the Ultrasonic Pulse velocity results, the Quality of concrete in the 8<sup>th</sup> & 10<sup>th</sup> floor Columns along with beam of , 7th & 10<sup>th</sup> Floor of the building is found o be of Doubtful concrete, therefore the same need to be further investigated by extraction more number of sample from the concern floors. As per the half cell potential meter test results, there is 27% Chance of Corrosion Activity in all floors.**

**In “Lotus Block”, As per the Ultrasonic Pulse velocity results, the Quality of concrete in the 9<sup>th</sup> & 11<sup>th</sup> floor Columns along with beam of 4<sup>th</sup> Floor roof of the building is found o be of Doubtful concrete, therefore the same need to be further investigated by extraction more number of sample from the concern floors. As per the half cell potential meter test results, there is 34% Chance of Corrosion Activity in all floors.**



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A House Of Structural Engineers, Project Management Consultants,  
Geotechnical Investigations & Non Destructive Testing.

CIN: U72900DL2010PTC201133



In “ORCHID Block”, As per the Ultrasonic Pulse velocity results, the Quality of concrete On 4<sup>th</sup> Floor roof Beam of the building is found to be of Doubtful concrete, therefore the same need to be further investigated by extraction more number of sample from the concern floors. As per the half cell potential meter test results, expect ground floor there is 12 to 20 % Chance of Corrosion Activity in all floors, Whereas the on ground floor beams there is 50% Chance of Corrosion Activity.

In “ROSEWOOD Block”, As per the Ultrasonic Pulse velocity results, the Quality of concrete in the building is found to be of Good to Excellent concrete. As per the half cell potential meter test results, there is 12 to 20 % Chance of Corrosion Activity in all floors.

In “PODIUM Block”, As per the Ultrasonic Pulse velocity results, the Quality of concrete in the building is found to be of Good to Excellent concrete. As per the half cell potential meter test results, there is 10 to 23 % Chance of Corrosion Activity in all floors.

In “Club Block”, As per the Rebound hammer test and Ultrasonic Pulse velocity results, the Quality of concrete in the 1st floor Columns and 2<sup>nd</sup> Floor Roof Beam is found to be of Doubtful concrete therefore the same need to be further investigated by extraction more number of sample from the concern floors. As per the half cell potential meter test results, there is 10 to 20 % Chance of Corrosion Activity in all floors.

As the carbonization depth has already reached to the depth of cover in different members of the buildings, therefore the work shall be started at the earliest or otherwise suitable epoxy coating shall be done the columns, beam and slab of the building, so that the further carbonization in the structural member shall be reduced.

For SHELTERA CONSULTANTS PVT. LTD.



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