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VGN
CREATING ASSETS SINCE 1942

VGN Projects Estates Pvt. Ltd.
CIN: U70102TN2008PTC066788
Y-222, Kimberly Towers, 2nd Avenue, Anna Nagar, Chennai - 600 040.
Ph: +91 44 4343 9900 Fax: +91 44 4343 9988 www.vgn.in



14.10.2024.

To
The Chairperson,
Tamilnadu Real Estate Regulatory Authority
No.1 A, First Floor, Gandhi Irwin Bridge Road,
Egmore, Chennai – 600008.

Sir,

SUB: Requisition for the registration of Blocks A, E & F of our residential project VGN Fairmont located at Town Survey Nos.22/5, 23/4, 24/4, 25/2, 29/2, 30/1, 30/4, 31/2, 32/2, 33/2, 34/2, Block no:2, in Alandur Village, Chennai – Reg.
Ref: 1. Our Online Application No: TNRERA/PBF/0422/2024.

With reference to the above subject, we had submitted our application for the TNRERA registration for Block A, E & F of our residential project VGN Fairmont located at Town Survey Nos.22/5, 23/4, 24/4, 25/2, 29/2, 30/1, 30/4, 31/2, 32/2, 33/2, 34/2, Block no:2, in Alandur Village, Chennai. Based on oral queries raised by your good office, we are herewith submitting the following facts for your kind perusal

1. We have asked the validity for the registration till the year 2030 because as per government amendment through TNGG extraordinary notification No.83 dated 31.01.2022 (Attached) and GO Ms. No.19 H &UD dated 02.03.2022 (Attached) of the Section 50 of Town and country planning Act 1971, the Planning Permission validity period has been increased from 5 years to 8 years automatically. Hence our Planning Permit will be automatically extended till 26-01-2028. Also taking into consideration that loss in time due to COVID-19, as per G.O. (Ms). No. 260 dated 16.12.2022 which states that the Planning Permissions obtained between 01.04.2014 and 31.03.2022, is extended for a further period of two years. Hence our planning Permit is valid till the year 2030. Please find the necessary evidence marked as Annexure 1

2. The Existing EC validity is for seven years till 16.09.2026. which can be extended for another term of three years, which we intend to do. The extension for the EC can be applied only three months prior to the expiry. We hereby assure and undertake you that we will apply for the extension of the EC and submit the same in the year 2026. Please find the undertaking for the same in stamp paper marked as Annexure 2

3. The Survey Nos are missing in the IAF and DRFS Noc's because those were the formats in which the NOC's were given by the respective governments departments at the time of receiving the NOC.

4. We do not have a copy of the Traffic Noc since it was directly sent to the CMDA by the traffic police and a copy was not marked to us and the planning permission was issued by the CMDA only on the receipt of the same.

VGN
CREATING ASSETS SINCE 1942

VGN Projects Estates Pvt. Ltd.
CIN: U70102TN2008PTC066788
Y-222, Kimberly Towers, 2nd Avenue, Anna Nagar, Chennai - 600 040.
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5. IAF NOC was not required since the site does not fall on the takeoff or landing zone and a letter was given to that effect by the IAF. Please find a copy the IAF letter marked as Annexure 3

6. The Structural Stability Certificate given by the Structural Consultant for 2 Basement+ 1 Stilt + 14 Floors enclosed for the Blocks A, E & F. Please find a copy of the same marked as Annexure 4

7. The Soil Test Report by the soil consultant for the project is enclosed for the Blocks A, E & F which is marked as Annexure 5

8. We also assure you that the cases filed by the CBI and ED have been closed and the copy of the CBI closure report and Supreme Court final order for the ED case are also enclosed as Annexure 6.

9. The necessary Site detail changes have been carried out in Form B and the same is enclosed and enclosed as Annexure 7

Therefore, we request you to do the needful and kindly register Blocks A, E & F in the VGN Fairmont Project under TNRERA till 26.01.2030 at the earliest.

Thanking you

For VGN Projects Estates Pvt. Ltd.

Authorised Signatory

Encl: As stated above.

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GOVERNMENT OF TAMIL NADU
2022

[Regd. No. TN/CCN/467/2012-14.
[R. Dis. No. 197/2009.
[Price: Rs. 2.40 Paise.

TAMIL NADU GOVERNMENT GAZETTE

EXTRAORDINARY PUBLISHED BY AUTHORITY

No. 83] CHENNAI, MONDAY, JANUARY 31, 2022
Thai 18, Pilava, Thiruvalluvar Aandu–2053

Part IV—Section 2

Tamil Nadu Acts and Ordinances

CONTENTS

Pages.

ACTS:

No.12 of 2022—The Tamil Nadu Town and Country Planning (Amendment) Act, 2022. 72

No. 13 of 2022—The Tamil Nadu Co-operative Societies (Amendment) Act, 2022.. 73-74

No. 14 of 2022—The Tamil Nadu Public Service Commission (Additional Functions) Act, 2022. 75-76

The following Act of the Tamil Nadu Legislative Assembly received the assent of the Governor on the 31st January 2022 and is hereby published for general information: —

Act No. 12 of 2022.

An Act further to amend the Tamil Nadu Town and Country Planning Act, 1971.

BE it enacted by the Legislative Assembly of the State of Tamil Nadu in the Seventy-second Year of the Republic of India as follows:-

Short title and commencement

1. (1) This Act may be called the Tamil Nadu Town and Country Planning (Amendment) Act, 2022.

(2) It shall come into force on such date as the State Government may, by notification, appoint.

Amendment of section 50

2. In section 50 of the Tamil Nadu Town and Country Planning Act, 1971,— Tamil Nadu Act 35 of 1972.

(1) for the expression "for a period of five years", the expression "for a period of eight years" shall be substituted;

(2) the first proviso shall be omitted.

(By order of the Governor)

C. GOPI RAVIKUMAR,
Secretary to Government (Legislation),
Law Department.

The following Act of the Tamil Nadu Legislative Assembly received the assent of the Governor on the 31st January 2022 and is hereby published for general information: —

Act No. 13 of 2022.

An Act further to amend the Tamil Nadu Co-operative Societies Act, 1983.

BE it enacted by the Legislative Assembly of the State of Tamil Nadu in the Seventy-second Year of the Republic of India as follows: —

Short title and commencement.

1. (1) This Act may be called the Tamil Nadu Co-operative Societies (Amendment) Act, 2022.

(2) It shall come into force at once.

Amendment of section 34.

Tamil Nadu Act 30 of 1983.

2. In section 34 of the Tamil Nadu Co-operative Societies Act, 1983, in sub-section (1), the following proviso shall be added to clause (i),namely:—

"Provided that nothing contained in this clause shall apply to any person who is visually impaired or unable to write due to any physical disability.".

(By order of the Governor)

C. GOPI RAVIKUMAR,
Secretary to Government (Legislation),
Law Department.

The following Act of the Tamil Nadu Legislative Assembly received the assent of the Governor on the 31st January 2022 and is hereby published for general information: —

Act No. 14 of 2022.

An Act to provide for entrustment of additional functions to the Tamil Nadu Public Service Commission as respects certain posts in State owned Public Sector Undertakings, State Corporations, statutory Boards and Authorities.

BE it enacted by the Legislative Assembly of the State of Tamil Nadu in the Seventy-second Year of the Republic of India as follows:—

Short title and commencement.

1. (1) This Act may be called the Tamil Nadu Public Service Commission (Additional Functions) Act, 2022.

(2) It shall come into force on such date as the State Government may, by notification, appoint.

Definitions.

2. In this Act, unless the context otherwise requires,—

(a) "Commission" means the Tamil Nadu Public Service Commission;

(b) "Government" means the State Government;

(c) "organisation" means a State owned Public Sector Undertaking, State Corporation, or a statutory Board or Authority under the control of the Government;

(d) "prescribed" means prescribed by rules made under this Act;

(e) "reserve list" means a list which is prepared so as to contain not less than twenty five percent of the candidates of each reservation group including general category in the selection list;

(f) "State" means the State of Tamil Nadu.

Request for recruitment.

3. Notwithstanding anything contained in any State law for the time being in force, any organisation may request the Commission, in such form as may be prescribed, to recruit candidates for appointment to posts in that organisation:

Provided that no such request shall be made in respect of the post of Driver and the posts classified as Group D in the Tamil Nadu Government Servants (Conditions of Service) Act, 2016.

Tamil Nadu Act 14 of 2016.

Recruitment by Commission.

4. (1) The Commission shall consolidate requisitions received under section 3 from time to time, conduct recruitments twice in a year, select the candidates and prepare a selection list as well as a reserve list, for each post by following the principles of reservation of appointments specified in section 27 of Tamil Nadu Government Servants (Conditions of Service) Act, 2016 and forward the selection lists to the organisations concerned:

Tamil Nadu Act 14 of 2016.

Provided that the Commission may conduct recruitment at any time, on requisition under special circumstances from any organisation.

(2) The reserve list shall be in force for a period of one year from the date of forwarding the selection list or until a selection list is drawn subsequently, whichever is earlier.

Appointment of candidates.

5. (1) On receipt of the selection list, the organisation shall issue appointment orders to the selected candidates.

(2) If any selected candidate fails to join duty in the organisation within a period of three months from the date of receipt of the appointment order, he shall forfeit his right for appointment:

Provided that the organisation may, in special circumstances, provide further period not exceeding three months to join duty.

(3) On the failure of the candidate to join duty within the said period, the organisation may request the Commission to send a candidate from the reserve list for appointment.

Power to remove difficulties.

6. If any difficulty arises in giving effect to the provisions of this Act, the Government may, by order, published in the *Tamil Nadu Government Gazette*, make such provisions not inconsistent with the provisions of this Act, as appear to them to be necessary or expedient for removing the difficulty:

Provided that no such order shall be made after the expiry of two years from the date of commencement of this Act.

Power to make rules.

7. (1) The Government may make rules to carry out the provisions of this Act.

(2) (a) All rules made under this Act shall be published in the *Tamil Nadu Government Gazette* and unless they are expressed to come into force on a particular day, shall come into force on the day on which they are so published.

(b) All notifications issued under this Act shall, unless they are expressed to come into force on a particular day, come into force on the day on which they are so published.

(3) Every rule made or notification or order issued under this Act shall, as soon as possible, after it is made or issued, be placed on the table of the Legislative Assembly, and if, before the expiry of the session in which it is so placed or the next session, the Assembly makes any modification in any such rule or notification or order, or the Assembly decides that the rule or notification or order should not be made or issued, the rule or notification or order shall thereafter have effect only in such modified form or be of no effect, as the case may be, so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule or notification or order.

(By order of the Governor)

C. GOPI RAVIKUMAR,
Secretary to Government (Legislation),
Law Department.

PRINTED AND PUBLISHED BY THE COMMISSIONER OF STATIONERY AND PRINTING, CHENNAI
ON BEHALF OF THE GOVERNMENT OF TAMIL NADU

ABSTRACT

Act – The Tamil Nadu Town and Country Planning (Amendment) Act, 2022 (Tamil Nadu Act 12 of 2022) – Date of Commencement of the said Act – Notification – Orders – Issued.

==========

Housing and Urban Development [UD4(1)] Department

G.O.(Ms).No.19 **Dated:02.03.2022**

பிலவ வருடம், மாசி 18,

திருவள்ளுவர் ஆண்டு, 2053.

ORDER:

The following Notification shall be published in the Tamil Nadu Government Gazette, Extraordinary, dated the 2nd March, 2022:-

NOTIFICATION.

In exercise of the powers conferred by sub-section (2) of section 1 of the Tamil Nadu Town and Country Planning (Amendment) Act, 2022 (Tamil Nadu Act 12 of 2022), the Governor of Tamil Nadu hereby appoints the 2nd day of March 2022 as the date on which the said Act shall come into force.

(BY ORDER OF THE GOVERNOR)

HITESH KUMAR S.MAKWANA,

PRINCIPAL SECRETARY TO GOVERNMENT.

To
The Works Manager,
Government Central Press, Chennai – 600 001.
The Secretary to Governor,
Raj Bhavan, Chennai - 600 022.
The Additional Chief Secretary to Government,
Finance Department, Chennai- 600 009.
The Additional Chief Secretary to Government,
Municipal Administration and Water Supply Department,
Chennai-600 009.
The Principal Secretary to Government,
Rural Development and Panchayat Raj Department,
Chennai-600 009.

..2..

The Secretary to Government,
Commercial Taxes and Registration Department,
Chennai-600 009.
The Principal Secretary to Government,
Revenue and Disaster Management Department,
Chennai-600 009.
The Secretary to Government,
Agriculture and Farmers Welfare Department,
Chennai - 600 009.
The Secretary to Government,
Law (Legislation) Department, Chennai 600 009.
All District Collectors.
The Director of Town and Country Planning,
Chennai-600 107.
The Member-Secretary,
Chennai Metropolitan Development Authority,
Chennai - 600 008.

Copy to:
The Hon'ble Chief Minister's Office, Chennai - 600 009.
The Special Personal Assistant to Hon'ble Minister for Housing and Urban Development, Chennai- 600 009.
The Special Personal Assistant to Hon'ble Minister for Law, Courts, Prisons and Prevention of Corruption, Chennai - 600 009.
The Senior Principal Private Secretary to Chief Secretary to Government, Chennai - 600 009.
The Private Secretary to Principal Secretary to Government,
Housing and Urban Development Department, Chennai - 600 009.
The Public (SC) Department, Chennai- 600 009.
The Housing and Urban Development (Budget/OP-1) Department, Chennai-600 009.
Stock file/Spare Copy.

//FORWARDED BY ORDER//

SECTION OFFICER.

ABSTRACT

Urban Development – COVID 19 Lockdown period – Planning Permission approval obtained from 01.04.2014 to 31.03.2022 – Duration of Planning Permission extended by 2 years due to special circumstances - Notification – Orders – Issued.

Housing and Urban Development [UD4(1)] Department

G.O.(Ms).No.260 **Dated: 16.12.2022**
சுபகிருது வருடம், மார்கழி 1,
திருவள்ளுவர் ஆண்டு 2053

Read

ORDER:

The Notification appended to this order shall be published in the Tamil Nadu Government Gazette, Extraordinary, dated the 16th December, 2022:-

(BY ORDER OF THE GOVERNOR)

APOORVA
PRINCIPAL SECRETARY TO GOVERNMENT

To
The Works Manager,
Government Central Press, Chennai – 600 001.
The Secretary to Governor,
Raj Bhavan, Chennai - 600 022.
The Additional Chief Secretary to Government,
Municipal Administration and Water Supply Department,
Chennai-600 009.
The Principal Secretary to Government,
Rural Development and Panchayat Raj Department,
Chennai-600 009.
The Principal Secretary to Government,
Revenue and Disaster Management Department,
Chennai-600 009.
The Secretary to Government,
Commercial Taxes and Registration Department,
Chennai-600 009.

The Secretary to Government,
Agriculture and Farmer's Welfare Department,
Chennai - 600 009.
The Member-Secretary,
Chennai Metropolitan Development Authority,
Chennai - 600 008.
The Director of Town and Country Planning,
Chennai-600 107.
Copy to:
The Special Personal Assistant to Hon'ble Minister for
Housing and Urban Development, Chennai- 600 009.
The Senior Principal Private Secretary to
Chief Secretary to Government, Chennai - 600 009.
The Private Secretary to Principal Secretary to Government,
Housing and Urban Development Department,
Chennai - 600 009.
The Housing and Urban Development (Budget/OP-1)
Department, Chennai-600 009.
Stock file/Spare Copy.

//FORWARDED BY ORDER//

16/12/22

SECTION OFFICER.

2.02
16/12/22

APPENDIX
NOTIFICATION

In exercise of the powers conferred by sub-section (1) of section 122 read with Section 113 of the Tamil Nadu Town and Country Planning Act, 1971 (Tamil Nadu Act 35 of 1972), the Governor of Tamil Nadu, hereby relaxes the provision of section 50 as follows:-

AMENDMENT

"Considering the loss of construction period of 2 years due to COVID, the duration of planning permission for the buildings for which planning permission was accorded during the period from 01.04.2014 to 31.03.2022 is extended for a further period of 2 years".

APOORVA
PRINCIPAL SECRETARY TO GOVERNMENT

//True Copy//

16/12/22

SECTION OFFICER.

16/12/22

भारतीय गैर न्यायिक

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BP 030236

R LAKSHMANAN
STAMP VENDOR
LC No 6/772/B3/95
No 261, E V R ROAD,
AMINJIKARAI, CHENNAI 29

UNDERTAKING

We, VGN Projects Estates Private Limited, having its offices at No Y-222, VGN Kimberly Towers, 2nd Avenue, Anna Nagar Chennai - 600040, have applied for the registration under TNRERA for Blocks A, E & F of its residential project in VGN Fairmont comprised of Town Survey Nos.22/5, 23/4, 24/4, 25/2, 29/2, 30/1, 30/4, 31/2, 32/2, 33/2, 34/2, Block no:2, in Alandur Village, Chennai.

We state that we have an existing Environmental Clearance vide letter No.SEIAA/TN/F.6488/EC/8(b)/658/2019 dated 16.08.2019. which is valid for 7 years till 15.08.2026. We do hereby undertake to apply for the an extension of the EC for 3 years before the expiry of the same and submit a copy to TNRERA.

Place: Chennai.

Dated: 14.10.2024.

For VGN PROJECTS ESTATES PVT. LTD.

Authorised Signatory

Tele: 22395553/7354
FAX: 22393036

Air Force Station
Tambaram
Chennai – 46

TAM/5218/1/ATC

07 Sep 17

VGN Property Developers Pvt. Ltd
No. 15, Wallace Garden, 2nd Street,
Nungambakkam, Chennai-600006

RETURNING OF NOC APPLICATION

1. Please refer your proposal for issue of NOC for construction of multistoried building at S. Nos. 22/5, 23/4, 24/4, 25/5, 29/2, 30/1, 30/4, 31/2, 33/2 and 34/2, Block No.2, Alandur Village of Guindy taluk, Chennai.

2. Your application was deliberated and it was found that the construction site falls in the 'Yellow Zone' of the Tambaram airfield's Colour Coded Zoning Map. The local Municipal or Town Planning and Development authority may approve the plan without requiring NOC from AF Stn Tambaram prior to construction. You are to forward a copy of the approval letter along with application (www.indianairforce.nic.in > services > ATS > NOC) and all documents in original to 'Chief Operations Officer, Air Force Station, Tambaram within a period of 30 days of approval. Municipal authorities are to ensure that the applicants exempted from seeking NOC from IAF furnish site coordinates and site elevation certificate issued by Survey of India in original for all intended structures and all corners of the plot. IAF shall have power to disapprove the clearance in case of Non Submission of these documents/any discrepancy in the documents. The violations of regulations shall be dealt under 'The Aircraft Rules -1994' (Demolition of Obstructions caused by Buildings and Trees etc.).

3. Original Colour Coded Zonning map of AF Tambaram is available with CMDA, Chennai Egmore and an A4 size copy of the same is attached herewith. The Colour Coded Zoning Map (CCZM) is strictly for reference of Local Municipal Authority / Municipal Commissioner.

4. You are advised to liaise with Local Municipal or Town Planning and Development authority for approval of construction and forward the copy of same to AF Stn Tambaram within 30 days failing which, IAF reserves the right to disapprove the clearance for construction.

Warm regards,

(RS Balisingh)
Wing Commander
Senior ATC Officer

Annexure: As stated

Er. P.RAMAN, B.E.,(CIVIL)M.E.,(Struct)
STRUCTURAL ENGINEER.
S.S Manian's ,
5/13, Thambiah Road Extn.,
West mambalam,
Chennai- 600 033.

Phone: **044-43512027**

E-mail: raman_str@yahoo.co.in

STRUCTURAL STABILITY CERTIFICATE

Name of work : Plan Showing the Proposed Construction of Multi Storeyed Building in Town Survey No.22/5, 23/4, 24/4, 25/2, 29/2, 30/1, 30/4, 31/2, 32/2, 33/2 & 34/2, Block No.2, Alandur Village, Guindy Taluk (Previously Mambalam-Guindy Taluk), Corporation of Chennai.

Preamble : 1. I hereby certify that the structural design sheet is done for Column, Foundation, Slab and beam.

2. The building consists of blocks (A,E,F) 2 combined Basements + Stilt floor +14 upper floors, club house (G+7 floors) and MLCP (2 combined Basements + Stilt floor +7 floors).

3. The usage of the building is 2 Basements + Stilt floor +14 upper floors.

4. The Super Structure is built on 200mm thick outer wall &100mm thick inner walls.

5. The soil is clay mixed sand.

6. All concrete for RCC members in 2 combined Basements + Stilt floor +14 upper floors are M35 & M40 concrete.

7. The structural design includes the earth quake Criteria as per IS: 1893(part 1)-latest revision.

STRUCUTURAL SYSTEM

The structural system adopted is as below, based on preliminary analysis and design, which have been elucidated later in this report.

- The building is basically a RC framed structure comprising of 2 combined Basements + Stilt floor +14 upper floors. The analysis and design are done using STAAD Pro Software.
- The foundation system Comprised of Isolated foundation is adopted as per Soil Test Report.
- All slabs are designed as conventional slabs.
- The building is designed on the basis of "Earthquake resistant design of Structures IS 1893 (Part 1): 2002 General provisions & Buildings with declaration of Seismic Zone III.
- **The above structure is structurally sound and safe.**

Er. P. RAMAN, B.E (CIVIL), M.E (Struct), M.I.E., C.Engg.,
Registered Structural Engineer Grade - I (SE)
CMDA Registration No: SE/GR - I/19/02/006
S.S Manians Apartments,
No.5/13, Thambiah Road Extn.,
West Mambalam, Chennai-600 033.

Er. P.RAMAN, B.E.,(CIVIL)M.E.,(Struct)
STRUCTURAL ENGINEER.
S.S Manian's ,
5/13, Thambiah Road Extn.,
West mambalam,
Chennai- 600 033.

Phone: **044-43512027**

E-mail: raman_str@yahoo.co.in

This is to certify that the Structural Design of the proposed residential building at above said site has been DESIGNED on the basis of EARTHQUAKE RESISTANT DESIGN OF STRUCTURES IS 1893 (Part 1): 2002 General Provisions & Buildings, with latest declaration of Seismic Zone III, Zone factor 0.16 and according to I.S. Loading standards I.S. – 875 All precautions have been taken as per the CONTENTS OF REPORT FOUNDATION ANALYSIS.. This Report has recommendations for effect of Seismic Condition for this Soil.

CALCULATION OF SEISMIC CO-EFFICIENT:

Name of city	: Chennai
Type of Building	: Residential Building
Building Frame System	: Special RC-Moment resisting frame (SMRF)
Fundamental Natural Period (Ts)	: (0.075)h ^3/4 =1.30 sec.
Soil conditions	: medium
Zone Factor (Refer Table:2) (Z)	: 0.16 (moderate)
Importance Factor (Refer Table:6) (I)	: 1.0
Response Reduction (Refer Table:7)	: 5.0
Average response acceleration Co-efficient (Sa/g)	: 1.04

EARTH QUAKE ANALYSIS:

Horizontal Seismic Co-efficient (Ah)	= (Z/2)(I / R)(Sa/g) =(0.16/2) (1.0/5.0) (1.04) = 0.016
Design value of Ah	= 0.016
Type of Foundation	: Raft Foundation

Er. P. RAMAN, B.E (CIVIL), M.E (Struct), M.I.E., C.Engg.,
Registered Structural Engineer Grade - I (SE)
CMDA Registration No: SE/GR - I/19/02/006
S.S Manians Apartments,
No.5/13, Thambiah Road Extn.,
West Mambalam, Chennai-600 033.

Er. P.RAMAN, B.E.,(CIVIL)M.E.,(Struct)
STRUCTURAL ENGINEER.
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5/13, Thambiah Road Extn.,
West mambalam,
Chennai- 600 033.

Phone: **044-43512027**

E-mail: raman_str@yahoo.co.in

1. GENERAL LOADING CONDITIONS:

(a) Imposed loads on Roof - 1.50kN/m^2

(b) Imposed loads on Hall, Kitchen. & Bed

Residential - 2.00kN/m^2

(d) Dead weight of R.C.C - 25kN/m^3

(e) Dead weight of Brick Work - 20kN/m^3

2. LOADING ON SLABS:

2.1 Loading on Roof slab:

Roof finished with lime concrete terracing	=(0.10)(20) =2.000kN/m^2
S/W of slab 125mm thick	=(.125)(25) =3.125kN/m^2
Dead load	=5.125kN/m^2
Live load	=1.50kN/m^2
Total load on Roof	= 6.625kN/m^2

2.2 Loading on Floor slabs:

Floor finish	= 1.00kN/m^2
S/w of slab 125mm thick	= 3.125kN/m^2
Dead load	=4.125kN/m^2
Live load	=2.00kN/m^2
Total load on Roof	= 6.125kN/m^2

Er. P. RAMAN, B.E (CIVIL), M.E (Struct), M.I.E., C.Engg.,
Registered Structural Engineer Grade - I (SE)
CMDA Registration No: SE/GR - I/19/02/006
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Er. P.RAMAN, B.E.,(CIVIL)M.E.,(Struct)
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Chennai- 600 033.

Phone: **044-43512027**

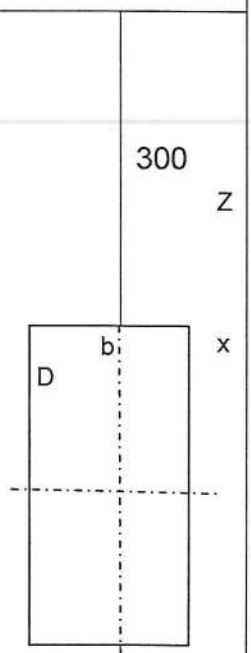
E-mail: raman_str@yahoo.co.in

3 DESIGN CALCULATIONS:

a. column design - C1:

COLUMN DESIGN- VGN

Member no			Load Case	
Grade of Concrete			M 35	
Characteristic Strength of Reinf.		N/mm^2	500	
Width of Column	b	mm	300	
Depth of Column	D	mm	1500	
Unsupported Length of Column	l_x	mm	3000	
Unsupported Length of Column	l_y	mm	3000	
Clear Cover to Reinf.		mm	40	
Diameter of Bar		mm	25	
Load		T		
Moment	M_{xx}	T.m		
Moment	M_{zz}	T.m		
Factored Load	P_u	kN	4894.956	1
Factored Moment	M_{ux}	kN.m	926.247	1
Factored Moment	M_{uz}	kN.m	491.757	1
Effective Length of Column	l_{ex}	mm	3600	1.2
	l_{ez}	mm	3600	1.2
	l_{ex}/D		2.4	0
			<12- Short Column	
	l_{ey}/b		12	0
			<12- Short Column	
Additional Moment due to Slender	M_{ax}	kN.m	0	
Additional Moment due to Slender	M_{az}	kN.m	0	
Percentage of Reinf.	p	%	2.6	
Gross Area of Cross Section	A_g	mm^2	450000	



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Ultimate Axial Load	P_{uz}	kN	11290.725	
d'/D (about x-x axis)			0.035	
d'/D (about y-y axis)			0.175	
(Table 60)	k1		0.219	
	k2		0.424	
	P_{bx}	kN	3945.330	
	k1		0.184	
	k2		0.028	
	P_{bz}	kN	2930.760	
	k_x		0.871	
	k_y		0.765	
Minimum Eccentricity	e_x	mm	56	
	e_y	mm	16	
Moments due to min. eccentricity	M_{ex}	kN.m	274.12	< 926.247 kN.m
Moments due to min. eccentricity	M_{ez}	kN.m	78.32	< 491.757 kN.m
Total Moments for which the column is to be designed are				
	M_{ux}	kN.m	926.247	
	M_{uz}	kN.m	491.757	
The section is to be checked for biaxial bending				
	$P_u/f_{ck}bD$		0.311	
	p/f_{ck}		0.0742857	
Referring to Chart 43 (d'/D is0.035)	$M_u/f_{ck}bD^2$		0.171	
	M_{ux1}	kN.m	4039.875	
Referring to Chart 46 (d'/D = 0.175)	$M_u/f_{ck}bD^2$		0.123	
	M_{uy1}	kN.m	581.175	
	M_{ux}/M_{ux1}		0.229	
	M_{uy}/M_{uy1}		0.846	
	P_u/P_{uz}		0.434	

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		a	1 1.39	
			< 1	
Mux/Mux1 + Muy/Muy1			0.922 OK	
Area of Reinforcement	As	mm^2	11700	
Minimum no of to be provided			12	
No of Bars to be provided	Nos.		24	

b. column design – C2

COLUMN DESIGN- VGN

Member no			Load Case	
Grade of Concrete			M 35	
Characteristic Strength of Reinf.		N/mm^2	500	300
Width of Column	b	mm	300	Z
Depth of Column	D	mm	1500	
Unsupported Length of Column	l_x	mm	3300	
Unsupported Length of Column	l_y	mm	3300	x
Clear Cover to Reinf.		mm	30	
Diameter of Bar		mm	25	b, D
Load		T		
Moment	M_{xx}	T.m		
Moment	M_{zz}	T.m		
Factored Load	P_u	kN	6041.331 1	
Factored Moment	M_{ux}	kN.m	454.932 1	
Factored Moment	M_{uz}	kN.m	207.909 1	
Effective Length of Column	l_{ex}	mm	3960 1.2	
	l_{ez}	mm	3960 1.2	
	l_{ex}/D		2.64 0	
			<12- Short Column	

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	l_{ey}/b		13.2	1
			>12- Slender Column	
Additional Moment due to Slender	M_{ax}	kN.m	0	
Additional Moment due to Slender	M_{az}	kN.m	157.89623	
Percentage of Reinf.	p	%	2	
Gross Area of Cross Section	A_g	mm^2	450000	
Ultimate Axial Load	P_{uz}	kN	10320.75	
d'/D (about x-x axis)			0.035	
d'/D (about y-y axis)			0.175	
(Table 60)	k1		0.219	
	k2		0.424	
	P_{bx}	kN	3830.850	
	k1		0.184	
	k2		0.028	
	P_{bz}	kN	2923.200	
	k_x		0.659	
	k_y		0.578	
Minimum Eccentricity	e_x	mm	56.6	
	e_y	mm	16.6	
Moments due to min. eccentricity	M_{ex}	kN.m	341.94 < 454.932	kN.m
Moments due to min. eccentricity	M_{ez}	kN.m	100.29 < 207.909	kN.m
Total Moments for which the column is to be designed are				
	M_{ux}	kN.m	454.932	
	M_{uz}	kN.m	299.251	
The section is to be checked for biaxial bending				
	$P_u/f_{ck}bD$		0.384	
	p/f_{ck}		0.0571429	
Referring to Chart 43 (d'/D is0.035)	$M_u/f_{ck}bD^2$		0.112	

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	M_{ux1}	kN.m	2646.000	
Referring to Chart 46 (d'/D = 0.175)	$M_u/f_{ck}bD^2$		0.088	
	M_{uy1}	kN.m	415.800	
	M_{ux}/M_{ux1}		0.172	
	M_{uy}/M_{uy1}		0.720	
	P_u/P_{uz}		0.586	
		a	1	1.6433
Mux/Mux1 + Muy/Muy1			0.638	< 1 OK
Area of Reinforcement	As	mm^2	9000	
Minimum no of to be provided			12	
No of Bars to be provided	Nos.		19	

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3.2 RAFT BEAM DESIGN

a. raft beam design – RB1

Beam Data

width	2000 mm
depth	1100 mm
clear cover to main reinf.	30 mm
Slab Thickness	400 mm

d'	51 mm
eff depth	1050 mm

Material Grades

Concrete	40 MPa
Steel	500 MPa

				Span Moment
Span Moment	0 KN-m		Mu/bd²	0.00
			xumax	479
			Mulim	11722
Support Moment	3349 KN-m	3319 KN-m	Mulim/bd²	5.32
		33 KN-m		

Span Reinforcement

Beam is designed as Singly Reinforced Beam

Minimum % of Steel as per IS 456 clause 25.5 required

Area of Steel	Tension (Ast)	Compr (Asc)
Percentage	0.170 %	-------
Area of Steel	3568 sqmm	

Refer Table 2 SP 16 pg 48

Tension Reinforcement

Type	Bar dia	Nos	Area of Steel
Layer 1	25 mm	5	2454 sqmm
Layer 2	20 mm	5	1571 sqmm
Layer 3	20 mm	0	0 sqmm
		Total Steel Provided	4025 sqmm

0.192 %

Provided Steel OK

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Compression Reinforcement

Type	Bar dia	Nos	Area of Steel
Layer 1	25 mm	4	
Layer 2	25 mm	0	
Layer 3			
Total Steel Provided			#VALUE!

Support Reinforcement
Beam is designed as Singly Reinforced Beam

Area of Steel	Tension (Ast)	Compr (Asc)	
Percentage	0.366 %	-------	*Refer Table 2 SP 16 pg 48*
Area of Steel	7689 sqmm		

Tension Reinforcement

Type	Bar dia	Nos	Area of Steel	
Layer 1	25 mm	10	4909 sqmm	
Layer 2	20 mm	9	2827 sqmm	
Layer 3	20 mm	0	0 sqmm	
Total Steel Provided			7736 sqmm	0.369 %
Provided Steel OK				

Compression Reinforcement

Type	Bar dia	Nos	Area of Steel	
Layer 1	16 mm	2		
Layer 2	25 mm	0		
Layer 3				
Total Steel Provided				#VALUE!

Shear Force (Vu)	1613 KN		
ζv	0.781	*=Vu / (b * d)*	
ζc	0.333	*Refer Table 61 SP 16 pg 179*	*or =(0.85*√(0.8*fck)*√(1+5β)-1)) / (6β)*
ζcmax	4	*Refer Table J SP 16 pg 175*	

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Type	Bar Dia	Nos	Area of Steel	
Layer 1	25 mm	0	0 sqmm	
Layer 2	25 mm	0	0 sqmm	
Layer 3	20 mm	0	0 sqmm	
			0 sqmm	0.000 %

Sectional Dimensions OK
Shear Reinforcements required

Steel	415 MPa		Vus/d	8.969 kN/cm
Type of stirrup	3 legged			
Stirrup diameter	10 mm			
Spacing	49 c/c	Safe		

b. raft beam design – RB2

Beam Data

width	1100 mm			
depth	1100 mm		d'	48 mm
clear cover to main reinf.	30 mm		eff depth	1052 mm
Slab Thickness	400 mm			

Material Grades

Concrete	40 MPa			
Steel	500 MPa			Span Moment
Span Moment	0 KN-m		Mu/bd²	0.00
			xumax	480
			Mulim	5889
Support Moment	2300 KN-m	2224 KN-m	Mulim/bd²	5.32
		62 KN-m		

Span Reinforcement

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Beam is designed as Singly
Reinforced Beam
Minimum % of Steel as per IS 456 clause 25.5
required

Area of Steel	Tension (Ast)	Compr (Asc)
Percentage	0.170 %	------
Area of Steel	1788 sqmm	

Refer Table 2 SP 16 pg 48

Tension Reinforcement

Type	Bar dia	Nos	Area of Steel
Layer 1	20 mm	0	0 sqmm
Layer 2	25 mm	4	1963 sqmm
Layer 3	20 mm	0	0 sqmm
	Total Steel Provided		1963 sqmm

0.187 %

Provided Steel OK

Compression Reinforcement

Type	Bar dia	Nos	Area of Steel
Layer 1	25 mm	4	
Layer 2	25 mm	0	
Layer 3			
	Total Steel Provided		

#VALUE!

Support Reinforcement
Beam is designed as Singly
Reinforced Beam

Area of Steel	Tension (Ast)	Compr (Asc)
Percentage	0.511 %	------
Area of Steel	5371 sqmm	

Refer Table 2 SP 16 pg 48

Tension Reinforcement

Type	Bar dia	Nos	Area of

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			Steel	
Layer 1	25 mm	6	2945 sqmm	
Layer 2	25 mm	5	2454 sqmm	
Layer 3	20 mm	0	0 sqmm	
		Total Steel Provided	5400 sqmm	0.513 %

Provided Steel OK

Compression Reinforcement

Type	Bar dia	Nos	Area of Steel	
Layer 1	16 mm	2		
Layer 2	25 mm	0		
Layer 3				
		Total Steel Provided		#VALUE!

Shear Force (Vu)	1676 KN		
ζv	1.688	*.=Vu / (b * d)*	
ζc	0.328	*Refer Table 61 SP 16 pg 179*	*or =(0.85*√(0.8*fck)*√(1+5β)-1)) / (6β)*
ζcmax	4	*Refer Table J SP 16 pg 175*	

Type	Bar Dia	Nos	Area of Steel	
Layer 1	25 mm	0	0 sqmm	
Layer 2	25 mm	0	0 sqmm	
Layer 3	20 mm	0	0 sqmm	
			0 sqmm	0.000 %

Sectional Dimensions OK
Shear Reinforcements required

Steel	415 MPa		Vus/d	13.591 kN/cm
Type of stirrup	3 legged			
Stirrup diameter	10 mm			
Spacing	32 c/c	Safe		

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3.3 BEAM DESIGN

a. beam design – B1

Beam Data

width	300 mm
depth	600 mm
clear cover to main reinf.	30 mm
Slab Thickness	125 mm

d' = 48 mm .= cc+ sdia + mdia/2

eff depth = 552 mm .= d - d'

Material Grades

Concrete	30 MPa
Steel	500 MPa

Span Moment	264 KN-m	
Support Moment	287 KN-m	287 KN-m
		0 KN-m

	Span Moment	Support Moment
Mu/bd²	2.89	3.14
xumax	252	252
Mulim	365	365
Mulim/bd²	3.99	3.99

Span Reinforcement

Beam is designed as
Singly Reinforced Beam

Area of Steel	Tension (Ast)	Compr (Asc)
Percentage	0.761 %	------
Area of Steel	1260 sqmm	

Refer Table 2 SP 16 pg 48

Tension Reinforcement

Type	Bar dia	Nos	Area of Steel
Layer 1	20 mm	0	0 sqmm
Layer 2	20 mm	3	942 sqmm
Layer 3	16 mm	2	402 sqmm
	Total Steel Provided		1345 sqmm

0.812 %

Provided Steel OK

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Compression Reinforcement

Type	Bar dia	Nos	Area of Steel
Layer 1	16 mm	0	
Layer 2	25 mm	0	
Layer 3			
Total Steel Provided			

Support Reinforcement

Beam is designed as
Singly Reinforced Beam

Area of Steel	Tension (Ast)	Compr (Asc)
Percentage	0.840 %	------
Area of Steel	1391 sqmm	

Refer Table 2 SP 16 pg 48

Tension Reinforcement

Type	Bar dia	Nos	Area of Steel
Layer 1	25 mm	0	0 sqmm
Layer 2	20 mm	3	942 sqmm
Layer 3	20 mm	2	628 sqmm
Total Steel Provided			1571 sqmm

0.949 %

Provided Steel OK

Compression Reinforcement

Type	Bar dia	Nos	Area of Steel
Layer 1	16 mm	0	
Layer 2	20 mm	0	
Layer 3			
Total Steel Provided			

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Shear Force (Vu)	**189 KN**		
ζv	1.141	*.=Vu / (b * d)*	
ζc	0.605	*Refer Table 61 SP 16 pg 179*	*or =(0.85*√(0.8*fck)*√(1+5β)-1)) / (6β)*
ζcmax	3.5	*Refer Table J SP 16 pg 175*	

Type	Bar Dia	Nos	Area of Steel	
Layer 1	**25 mm**	**0**	0 sqmm	
Layer 2	**25 mm**	**0**	0 sqmm	
Layer 3	**20 mm**	**0**	0 sqmm	
			0 sqmm	0.000 %

Sectional Dimensions
OK
Shear Reinforcements
required

Steel	**415 MPa**		Vus/d	1.610 kN/cm	1.610
Type of stirrup	**2 legged**				
Stirrup diameter	**8 mm**				
Spacing	272 c/c	Safe			

b. beam design – B2

Beam Data

width	200 mm	d'	48 mm	*.= cc+ sdia + mdia/2*
depth	600 mm	eff depth	552 mm	*.= d - d'*
clear cover to main reinf.	30 mm			
Slab Thickness	125 mm			

Material Grades

Concrete	30 MPa

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				Span Moment	Support Moment
Steel	500 MPa				
Span Moment	212 KN-m		Mu/bd²	3.48	3.64
			xumax	252	252
			Mulim	243	243
Support Moment	222 KN-m	222 KN-m	Mulim/bd²	3.99	3.99
		0 KN-m			

Span Reinforcement
Beam is designed as Singly Reinforced Beam

Area of Steel	Tension (Ast)	Compr (Asc)	
Percentage	0.951 %	------	*Refer Table 2 SP 16 pg 48*
Area of Steel	1050 sqmm		

434 KN-m

Tension Reinforcement

Type	Bar dia	Nos	Area of Steel	
Layer 1	20 mm	0	0 sqmm	
Layer 2	20 mm	4	1257 sqmm	2042 sqmm
Layer 3	20 mm	0	0 sqmm	
		Total Steel Provided	1257 sqmm	1.138 %
		Provided Steel OK		

Compression Reinforcement

Type	Bar dia	Nos	Area of Steel
Layer 1	16 mm	0	
Layer 2	25 mm	0	
Layer 3			
	Total Steel Provided		#VALUE!

Support Reinforcement
Beam is designed as Singly Reinforced Beam

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Area of Steel	Tension (Ast)	Compr (Asc)
Percentage	1.007 %	------
Area of Steel	1112 sqmm	

Refer Table 2 SP 16 pg 48

2.25375125148833
-0.164187656182662
-0.056142565301946

Tension Reinforcement

Type	Bar dia	Nos	Area of Steel
Layer 1	25 mm	0	0 sqmm
Layer 2	20 mm	2	628 sqmm
Layer 3	16 mm	3	603 sqmm
	Total Steel Provided		1232 sqmm

1.115 %

Provided Steel OK

1832 sqmm
1473 sqmm

2514 sqmm

Compression Reinforcement

Type	Bar dia	Nos	Area of Steel
Layer 1	16 mm	0	
Layer 2	20 mm	0	
Layer 3			
	Total Steel Provided		

#VALUE!

Shear Force (Vu)	169 KN	
ζv	1.531	*=Vu / (b * d)*
ζc	0.689	*Refer Table 61 SP 16 pg 179*
ζcmax	3.5	*Refer Table J SP 16 pg 175*

or
=(0.85√(0.8*fck)*√(1+5β) -1)) / (6β)*

Type	Bar Dia	Nos	Area of Steel
Layer 1	25 mm	0	0 sqmm
Layer 2	25 mm	0	0 sqmm

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Layer 3	20 mm	0	0 sqmm		
			0 sqmm	0.000 %	

Sectional Dimensions OK
Shear Reinforcements required

Steel	**415 MPa**		Vus/d	1.684 kN/cm	1.684
Type of stirrup	**2 legged**				
Stirrup diameter	**8 mm**				
Spacing	260 c/c	Safe			

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3.4 TWO WAY SLAB DESIGN

a. slab design – S1

Slab thickness	t	125 mm
Concrete	fck	25 MPa
Steel	fy	500 MPa

Sunken Depth: 0 mm

Loading

Slab Load

Dead Load	DL	3.125 KN/m
Live Load	LL	2.000 KN/m
Finishes Load	WL	1.000 KN/m
Total Load	Ws	6.125 KN/m
Factored Load	Wsu	9 KN/m

Sunken Slab Load

Dead Load	DL	3.125 KN/m
Filler Load	FL	0 KN/m
Live Load	LL	3.0 KN/m
Finishes Load	WL	1.0 KN/m
Total Load	Wsk	7.13 KN/m
Factored Load	Wsku	11 KN/m

Slab Data

Slab Type	Regular
Load	9 KN/m
Longer Span (ly)	6.80 m
Shorter Span (lx)	4.30 m

ly/lx ratio	1.58
Slab type	+

Loading on edges		*one way*	*two way*
W_{longer}	**17 KN/m**	$=w*lx/2$	$=(w*lx/2) + (1-(1/3)*(lx/ly)^2)$
$W_{shorter}$	**13 KN/m**		$=w*lx/3$

Moments		*one way*	*two way*
Mx	15 KN-m	$=w*lx^2/8$	$=\alpha x * w*lx^2$
My	10 KN-m		$=\alpha y * w*lx^2$

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Slab Data

Slab Type	Regular
Load	9 KN/m
Longer Span (ly)	3.50 m
Shorter Span (lx)	4.50 m

ly/lx ratio	0.78
Slab type	+

Loading on edges		*one way*	*two way*
W_{longer}	**9 KN/m**	*.=w*lx/2*	*.=(w*lx/2) + (1-(1/3)*(lx/ly)^2)*
$W_{shorter}$	**14 KN/m**		*.=w*lx/3*

Moments		*one way*	*two way*
Mx	7 KN-m	*.=w*lx^2/ 8*	*.=αx * w*lx^2*
My	10 KN-m		*.=αy * w*lx^2*

Thickness Check	OK	*.=Mulim > Mux or Muy*
Deflection	4 mm	*.= 5*W*l^4/(384EI)*

Area of Steel	Astx	Asty	*Refer Chart 4 SP 16 pg 21*
	161 sqmm	**239 sqmm**	*Refer Table 5-44 SP 16 pg 51-80*

or

Spacing required in mm

8#		10#		12#		16#	
x	y	x	y	x	y	x	x
313 c/c	**210 c/c**	**489 c/c**	**329 c/c**	**704 c/c**	**473 c/c**	**965 c/c**	**841 c/c**

*.=ast of bar*1000/ast req*

Final Ast provided	x	y
	8# @ 250c/c	**8# @ 150c/c**

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SOIL INVESTIGATION FOR PROPOSED STRUCTURE (2 BASEMENTS + STILT + 14 FLOORS) RESIDENTIAL PROJECT "VGN FAIRMONT" LOCATED AT TOWN SURVEY NOS. 22/5, 23/4, 24/4, 25/2, 29/2, 30/1, 30/4, 31/2, 32/2, 33/2 & 34/2, BLOCK NO. 2, IN ALANDUR VILLAGE, THIRU. VI. KA INDUSTRIAL ESTATE, GUINDY, CHENNAI – 600 032.

CLIENT

M/s. VGN INFRA INDIA PVT. LTD.

TITLE

FINAL REPORT

REPORT NO: SI/CHN/13/1139/02

JUNE 2013

GEO FOUNDATIONS & STRUCTURES PVT LTD
3/2, RAMS, No.89, I Main Road, Gandhi Nagar, Adyar,
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SOIL INVESTIGATION REPORT

1.0 INTRODUCTION

1.1 The work of Soil Investigation for Proposed Structure (2 Basements + Stilt + 14 Floors) Residential Project "VGN FAIRMONT" Located at Town Survey Nos. 22/5, 23/4, 24/4, 25/2, 29/2, 30/1, 30/4, 31/2, 32/2,33/2 & 34/2, Block No. 2, in Alandur Village, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai – 600 032.was entrusted to **M/s. Geo Foundations and Structures (P) Ltd.**, Adyar, Chennai – 600 020, by **M/s. VGN Infra India Pvt. Ltd.**, Second Street, Nungambakkam, Chennai-600 006.

1.2 The soil Investigation and laboratory studies were carried out during **April** and **May 2013.** This report summarizes the results of the soil investigation, and presents recommendation for suitable type of foundations.

2.0 OBJECTIVE OF INVESTIGATION

2.1 The objective of soil investigation is to determine the nature and characteristics of sub-soil below the ground level for the proposed structure. The study includes identification of a suitable type of foundation for the proposed structures and assessment of safe capacity.

3.0 SCOPE OF WORK

The scope of work at this site comprises of the following:

3.1 Mobilization of boring rigs with all necessary equipment's and personnel.

3.2 Boring of **nineteen** bore holes of 150 mm dia with Calyx drilling equipment's through sand, silt, clay & rock etc. up to **hard strata.**

3.3 Conducting Standard Penetration Tests in the bore holes and collecting the representative soil samples including packing and transportation to laboratory.

3.4 To conduct the following laboratory tests on soil samples:

(a) Sieve analysis

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(b) Index properties:

(i) Liquid limit

(ii) Plastic limit

(c) Dry & wet density

(d) Water content

(e) Specific gravity

(f) Direct shear test

(g) UCS

3.5 Preparation and submission of detailed report of field and laboratory results with recommendations for foundations.

4.0 FIELD INVESTIGATIONS-GEO-TECHNICAL STUDIES

4.1 Boring rigs with all requisite equipment's and accessories were mobilized at the worksite. A team of technical personnel with skilled labours was also deputed.

4.2 **Nineteen** bore holes of 150 mm diameters were bored to a maximum depth of **13.50 m** below the existing ground level. The bore holes were made as per relevant Indian Standard IS: 1892.

4.3 Representative soil samples were collected at every change of strata or about 1 m depth interval up to 5 m from the existing ground level, followed by 1.50 m up to the hard strata. The samples so collected were sealed and numbered with full particulars for identification and sent to the laboratory for conducting the required tests.

4.4 Standard Penetration tests were conducted in the bore holes at 1 m depth interval up to 5 m from the existing ground level, followed by 1.5 m depth intervals up to the hard strata, as per the relevant Indian Standard, IS: 2131. In this test, a standard split spoon sampler is driven into the ground at the required depth by means of standard hammer of 63.5 kgs weight, falling from a height of 75 cm. Number of

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blows for the first 15 cm is not taken into consideration because of possible disturbances or presence of settled, suspended matters at the bottom of the bore-holes. The total number of blows for the next 30 cm depth of penetration is considered as SPT 'N' value as shown in Figure nos 1 to 19.

5.0 LABORATORY INVESTIGATION

The following laboratory tests were conducted on the selected soil samples collected from the test bore holes:

(a) Sieve analysis

(b) Index properties:

  (i) Liquid limit

  (ii) Plastic limit

(c) Dry & wet density

(d) Water content

(e) Specific gravity

(f) Direct shear test

(g) UCS

All the above laboratory tests were carried out as per relevant Indian Standards.

All the samples were identified and classified as per relevant Indian Standard, IS: 1498.

The results are shown in Table Nos. 1 to 19.

6.0 SOIL PROFILE

Soil profiles of bore holes is as given below.

In bore hole **BH-1** medium dense silty clayey sand occurs from ground level up to a depth of 2.00 m, followed by dense silty sand up to 3.00 m, medium dense silty sand up to 4.00 m, loose sand up to 5.00 m, medium dense silty sand up to 6.50 m, medium stiff sandy clay up to 8.00m, stiff sandy clay up to 11.00 m, very dense silty gravely sand up to 12.00 m, very

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dense silty sand up to **12.50 m,** followed by very dense sand at which depth the bore hole was terminated.

In bore hole **BH-2** stiff sandy clay occurs from ground level up to a depth of 2.00 m, followed by very stiff sandy clay up to 3.00 m, medium dense silty sand up to 6.50 m, stiff sandy clay up to 11.00 m, followed by very dense silty sand up to **13.50 m,** at which depth the bore hole was terminated.

In bore hole **BH-3** medium dense silty sand occurs from ground level up to a depth of 2.00 m, medium dense silty clayey sand up to 3.00 m, medium dense silty sand up to 6.50 m, stiff to very stiff sandy clay up to 9.50 m, very dense sand up to 11.00 m, followed by very dense sandy gravel up to **12.50 m,** at which depth the bore hole was terminated.

In bore hole **BH-4** medium dense silty sand occurs from ground level up to a depth of 3.00 m, followed by medium dense sand up to 4.00 m, medium dense silty sand up to 6.50 m, stiff sandy clay up to 8.00 m, medium dense sandup to **9.50 m**, followed by very dense sandy gravel, at which depth the bore hole was terminated.

In bore hole **BH-5** medium dense silty sand occurs from ground level up to a depth of 6.50 m, followed by stiff sandy clay up to **9.50 m**, followed by very dense sandy gravel at which depth the bore hole was terminated.

In bore hole **BH-6** medium dense silty sand occurs from ground level up to a depth of 5.00 m, followed by loose sand up to 6.50 m, medium stiff to stiff sandy clay up to 9.50 m, followed by very dense sandy gravel up to **11.00 m,**at which depth the bore hole was terminated.

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In bore hole **BH-7** loose clayey sand occurs from ground level up to a depth of 2.00 m, medium dense silty sand up to 4.00 m, medium dense sand up to 6.50 m, medium stiff to stiff sandy clay up to 9.50 m, followed by very dense sand up to **11.00 m**, at which depth the bore hole was terminated.

In bore hole **BH-8** loose clayey sand occurs from ground level up to a depth of 2.00 m, followed by medium dense silty sand up to 3.00 m, medium dense sandy silt up to 4.00 m, Medium dense sand up to 8.00 m, medium dense clayey sand up to 9.50 m, followed very dense sandy gravel up to **11.00 m**at which depth the bore hole was terminated.

In bore hole **BH-9** loose sand occurs from ground level up to a depth of 2.00 m, followed by medium dense silty sand up to 5.00 m, medium dense sand up to 6.50 m, stiff to very stiff sandy clay up to 9.50 m, followed by very dense sandy gravel up to **11.00 m,** at which depth the bore hole was terminated.

In bore hole **BH-10** medium dense sand occurs from ground level up to a depth of 2.00 m, followed by medium dense silty sand up to 4.00 m, medium dense sand up to 5.00 m, dense sand up to 6.50 m, medium stiff to stiff sandy clay up to 9.50 m, followed by very dense sandy gravel up to **10.00 m**, at which depth the bore hole was terminated.

In bore hole **BH-11** medium stiff sandy clay occurs from ground level up to a depth of2.00 m, followed by medium dense silty sand up to 4.00 m, dense sand up to 6.50 m, stiff sandy clay up to 8.00 m, very stiff sandy clay up to **9.50** m, followed by very dense sandy gravel.

In bore hole **BH-12** medium dense silty sand occurs from ground level up to a depth of 2.00 m, followed by loose sand up to 3.00 m, medium dense sand 5.00 m, medium dense silty

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sand up to 6.50 m, medium dense clayey sand up to 8.00 m, loose clayey sand up to 9.50 m, followed by very dense sandy gravel up to **11.00 m,** at which depth the bore hole was terminated.

In bore hole **BH-13** medium dense silty sand occurs from ground level to a depth of 3.00 m, followed by medium dense sand up to 8.00 m, medium dense clayey sand up to 9.50 m, followed by very dense sandy gravel up to **11.00 m,** at which depth the bore hole was terminated.

In bore hole **BH-14** medium dense silty sand occurs from ground level up to a depth of 2.00 m, followed by medium dense sand up to 6.50 m, stiff sandy clay up to 8.00 m, very loose clayey sand up to 9.50 m, followed by very dense sandy gravel up to **11.00 m,** at which depth the bore hole was terminated.

In bore hole **BH-15** medium dense sand occurs fromground level up to a depth of 2.00 m, followed by medium dense silty sand up to 4.00 m, medium dense sand up to 6.50 m, medium dense clayey sand up to 9.50 m, followed by very dense sand up to **11.00 m,** at which depth the bore hole was terminated.

In bore hole **BH-16** filled up rubbish, sand and debris of existing foundation occurs from ground level up to a depth of 3.00 m, followed by medium dense sand up to 5.00 m, medium dense silty sand up to 6.50m, stiff sandy clay up to 8.00 m, medium dense clayey sand up to 9.50 m, followed by very dense sand with rock pebbles up to **11.00 m,** at which depth the bore hole was terminated.

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In bore hole **BH-17** loose sand occurs from ground level up to 2.00 m, medium dense sand up to 4.00 m, medium dense silty sand up to 6.50 m, stiff sandy clay up to 9.50 m, followed by very dense sand up to a depth of **11.00 m,** at which depth the bore hole was terminated.

In bore hole **BH-18** filled up rubbish, sand and debris of existing foundation occurs from ground level up to a depth of 2.00 m, followed by medium dense silty sand up to 4.00 m, dense silty sand up to 5.00 m, dense sand up to 6.50 m, medium stiff sandy clay up to 8.00 m, stff sandy clay up to 9.50 m, followed by very dense sandy gravel up to **11.00 m,** at which depth the bore hole was terminated.

In bore hole **BH-19** loose silty sand occurs from ground level up to a depth of 2.00 m, followed by medium dense silty sand up to 6.50 m, medium stiff sandy clay up to 8.00 m, very stiff sandy clay up to 9.50 m, followed by very dense sand with rock pebbles up to **12.50 m,** at which depth the bore hole was terminated.

7.0 GROUND WATER TABLE

Ground water table was met at a depth of **3.0 m to 4.9 m** below the existing ground level in all the bore holes, during boring from ***18/04/2013*** to ***27/04/2013***.

8.0 DISCUSSION AND RECOMMENDATIONS ON RESULTS AND TYPE OF FOUNDATION

For the soil conditions discussed in Sl.no.6 above, the following recommendations are made for foundations of the proposed buildings of 2B+stilt+14 upper floors.

Open Foundations

- For the proposed two basements, excavation up to a depth of 8 m to 9 m will be required for the foundations the ground conditions are almost same at all the borehole locations, but hard strata varies from 9.5 m to 11.0 m below ground level. For the proposed structures raft foundation is recommended.

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- After thorough compaction of the soil at the bottom of excavation in the foundation pits, 75 mm or 100 mm thick PCC 1:4:8 may be laid, to serve as a leveling course for the RCC foundations.
- A safe bearing capacity of **30 t/ m²** is recommended under the foundations @ 17 100
- At the time of excavation for foundation, if ground water table occurs within the recommended depth of excavation, sumps may be made to an additional depth of 0.3 m at desired locations along the periphery of excavation for raft foundation and the water collected in the sumps may be bailed out. At the time of laying the PCC layer, the bottom of excavation shall be relatively dry (not slushy). Dewatering shall be maintained until the construction progresses well above the ground Water Table level.
- Dewatering shall be maintained until the construction progresses well above the ground Water Table level.
- The enclosure walls (outer walls) of the proposed two basements for the portion below the filled up ground level shall be designed for lateral earth pressure. The applicable lateral earth pressure is "at rest" earth pressure. The co-efficient of lateral earth pressure at rest is 0.6. Hydrostatic pressure on the enclosure walls shall be considered for the depth below the highest possible ground water table level, in addition to lateral earth pressure. At the time of soil investigation itself (18.04.2013 to 27.04.2013), the ground water table was at 3 m to 4.9 m below the existing ground level. Therefore, it is recommended that the highest ground water table may be assumed to rise up to the existing ground level.
- A submerged unit weight of soil of 1 t/m³ shall be considered for calculating the lateral earth pressure below ground water table level, along with the hydro static pressure. For the height above the ground water table level, a bulk unit weight of 2 t/ m³ may be considered to calculate the lateral earth pressure.

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- The base slab of the bottom most Basement floor shall be designed for uplift pressure due to the ground water table for the depth below the highest possible ground water table level, assuming that the highest ground water table level may rise up to the existing ground level.
- The outer walls of the two Basement Floors shall be very dense, so that there will not be any seepage of the water in to the Basement, thereby avoiding problems of corrosion of reinforcement in the walls & collection and disposal of the seeped water.
- Back filling around the two Basement floors shall be done using clean river sand or M-sand (Quarry sand, but not Quarry Dust, in layers of not more than 200 mm thickness, earth level. Each layer shall be well compacted (mere spreading the back fill material for back filling is not adequate. Layered compaction shall be done for back filling).

9. 0 The results and recommendations given in this report are based on the results of the tests on sub soil samples collected from the bore holes. If, in actual execution, any variation is found, the consultants may also be referred to.

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APPENDIX- I

BORE LOGS



Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

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Location	: Guindy
Bore Hole No	: 1
Type of Boring	: Calyx
Ground Water Level	: 4.2 m on 20.04.2013
Termination Depth	: 12.5 m

Drillhole Record - BH 1

Fig No. 1

Start Date : 18.04.2013

End Date : 19.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT"N" Blows/300mm	SPT 'N' PROFILE	C.R (%)	R.Q.D(%)	REMARKS
Silty Clayey SAND	Brown	Medium Dense, Granular	2.00		SPT-1	SS	1.00	1.00-1.45	5	9	15	24				
Silty SAND	Brown	Dense, Granular			SPT-2	SS	2.00	2.00-2.45	9	12	20	32				
Brownish, Medium Dense Silty SAND			4.00		SPT-3	SS	3.00	3.00-3.45	8	12	13	25				
SAND	Brown	Loose, Granular	5.00		SPT-4	SS	4.00	4.00-4.45	2	1	4	5				G.W.L
Silty SAND	Brown	Medium Dense, Granular	6.50		SPT-5	SS	5.00	5.00-5.45	11	7	7	14				
Sandy CLAY	Grey	Medium Stiff, Layered / Stiff, Layered	11.00		SPT-6	SS	6.50	6.50-6.95	3	4	4	8				
					SPT-7	SS	8.00	8.00-8.45	4	5	10	15				
					SPT-8	SS	9.50	9.50-9.95	4	5	11	16				
Weathered rock			12.60		SPT-9	SS	11.00	11.00-11.12	50	-	-	>100				50/12 cm Penetration
					SPT-10	SS	12.00	12.00-12.13	50	-	-	>100				50/13 cm Penetration
					SPT-11	SS	12.50	12.50-12.60	50	-	-	>100				50/10 cm Penetration

G.W.L on : 20.04.2013	4.2 m	No. of. SPT	11 nos	REMARKS

Note: SPT-Standard Penetration Test SS-Soil Sample, CR-Core Recovery , RQD-Rock Quality Designation

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Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location	: Guindy
Bore Hole No	: 2
Type of Boring	: Calyx
Ground Water Level	: 3.8 m on 21.04.2013
Termination Depth	: 13.5 m

Drillhole Record - BH 2

Fig No. 2

Start Date : 19.04.2013

End Date : 20.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT 'N' Blows/300mm	SPT 'N' PROFILE 20 40 60 80 100	C.R (%)	R.Q.D(%)	REMARKS
Sandy **CLAY**	Brown	Stiff, Layered			SPT-1	SS	1.00	1.00-1.45	5	7	9	16				
					SPT-2	SS	2.00	2.00-2.45	4	7	11	18				
		Very Stiff, Layered	3.00		SPT-3	SS	3.00	3.00-3.45	7	10	12	22				
Silty **SAND**	Brown	Medium Dense, Granular			SPT-4	SS	4.00	4.00-4.45	7	12	12	24	G.W.L			
					SPT-5	SS	5.00	5.00-5.45	10	12	13	25				
			6.50		SPT-6	SS	6.50	6.50-6.95	4	5	5	10				
Sandy **CLAY**	Grey	Stiff, Layered			SPT-7		8.00	8.00-8.45	3	6	7	13				
					SPT-8	SS	9.50	9.50-9.95	5	6	9	15				

G.W.L on : 21.04.2013	3.8 m	No. of. SPT	11 nos	REMARKS

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Note: SPT-Standard Penetration Test SS-Soil Sample, CR-Core Recovery , RQD-Rock Quality Designation

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

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Drillhole Record - BH 2

Fig No. 2

Location	: Guindy		
Bore Hole No	: 2		
Type of Boring	: Calyx		
Ground Water Level	: 3.8 m on 21.04.2013	Start Date	: 19.04.2013
Termination Depth	: 13.5 m	End Date	: 20.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT 'N' Blows/300mm	SPT 'N' PROFILE	C.R (%)	R.Q.D(%)	REMARKS
Sandy **CLAY**	Grey	Stiff, Layered	11.00		SPT-9	SS	11.00	11.00-11.45	41	50	55	>100				
Weathered rock					SPT-10	SS	12.50	12.50-12.50	>100	-	-	>100				Rebound
			13.50		SPT-11	SS	13.50	13.50-13.50	>100	-	-	>100				Rebound

G.W.L on : 21.04.2013	3.8 m	No. of. SPT	11 nos	REMARKS

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Note: SPT-Standard Penetration Test SS-Soil Sample,

CR-Core Recovery , RQD-Rock Quality Designation

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

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Drillhole Record - BH 3

Fig No. 3

Location	: Guindy		
Bore Hole No	: 3		
Type of Boring	: Calyx		
Ground Water Level	: 4.1 m on 21.04.2013	Start Date	: 19.04.2013
Termination Depth	: 12.5 m	End Date	: 20.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT"N" Blows/300mm	SPT 'N' PROFILE	C.R (%)	R.Q.D(%)	REMARKS
Silty SAND	Brown	Medium Dense, Granular			SPT-1	SS	1.00	1.00-1.45	7	8	10	18				
			2.00		SPT-2	SS	2.00	2.00-2.45	7	7	10	17				
Brownish, Medium dense, Silty Clayey SAND			3.00		SPT-3	SS	3.00	3.00-3.45	7	9	12	21				
Silty SAND	Brown	Medium Dense, Granular			SPT-4	SS	4.00	4.00-4.45	6	8	11	19			G.W.L	
					SPT-5	SS	5.00	5.00-5.45	8	9	13	22				
			6.50		SPT-6	SS	6.50	6.50-6.95	5	7	8	15				
Sandy CLAY	Dark grey	Stiff, Layered			SPT-7	SS	8.00	8.00-8.45	5	8	10	18				
	Grey	Very Stiff, Layered	9.50		SPT-8	SS	9.50	9.50-9.50	>100	-	-	>100				Rebound
Weathered rock					SPT-9	SS	11.00	11.00-11.00	>100	-	-	>100				Rebound
			12.50		SPT-10	SS	12.50	12.50-12.50	>100	-	-	>100				Rebound

G.W.L on : 21.04.2013	4.1 m	No. of. SPT	10 nos	REMARKS

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Note: SPT-Standard Penetration Test SS-Soil Sample, CR-Core Recovery , RQD-Rock Quality Designation

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Drillhole Record - BH 4

Fig No. 4

Location	: Guindy		
Bore Hole No	: 4		
Type of Boring	: Calyx		
Ground Water Level	: 4.6 m on 21.04.2013	Start Date	: 20.04.2013
Termination Depth	: 9.5 m	End Date	: 20.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT"N" Blows/300mm	SPT 'N' PROFILE	C.R (%)	R.Q.D(%)	REMARKS
Silty SAND	Brown	Medium Dense, Granular			SPT-1	SS	1.00	1.00-1.45	9	7	11	18				
					SPT-2	SS	2.00	2.00-2.45	11	8	7	15				
			3.00		SPT-3	SS	3.00	3.00-3.45	9	11	8	19				
Bronwish, Medium Dense, SAND			4.00		SPT-4	SS	4.00	4.00-4.45	12	8	12	20				
Silty SAND	Brown	Medium Dense, Granular			SPT-5	SS	5.00	5.00-5.45	16	7	13	20			G.W.L	
			6.50		SPT-6	SS	6.50	6.50-6.95	4	3	7	10				
Sandy CLAY	Dark grey	Stiff, Layered	8.00		SPT-7	SS	8.00	8.00-8.45	7	3	8	11				
SAND	Dark grey	Medium Dense, Granular	9.50		SPT-8	SS	9.50	9.50-9.54	>50	-	-	>100				50/4cm penetration
Weathered rock																

SPT 'N' PROFILE scale: 20, 40, 60, 80, 100

G.W.L on : 21.04.2013	4.6 m	No. of. SPT	8 nos	REMARKS

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Note: SPT-Standard Penetration Test SS-Soil Sample, CR-Core Recovery , RQD-Rock Quality Designation

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location	: Guindy	Drillhole Record - BH 5	
Bore Hole No	: 5	Fig No. 5	
Type of Boring	: Calyx		
Ground Water Level	: 3.6 m on 21.04.2013	Start Date	: 20.04.2013
Termination Depth	: 9.5 m	End Date	: 20.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT "N" Blows/300mm	SPT 'N' PROFILE	C.R (%)	R.Q.D(%)	REMARKS
Silty SAND	Brown	Medium Dense, Granular			SPT-1	SS	1.00	1.00-1.45	7	9	8	17				
					SPT-2	SS	2.00	2.00-2.45	9	7	12	19				
					SPT-3	SS	3.00	3.00-3.45	11	12	14	26				G.W.L
					SPT-4	SS	4.00	4.00-4.45	12	11	9	20				
					SPT-5	SS	5.00	5.00-5.45	14	17	13	30				
			6.50		SPT-6	SS	6.50	6.50-6.95	7	7	8	15				
Sandy CLAY	Dark gray	Stiff, Layered			SPT-7	SS	8.00	8.00-8.45	6	7	3	10				
			9.50		SPT-8	SS	9.50	9.50-9.50	>100	-	-	>100				Rebound
Weathered rock																

G.W.L on : 21.04.2013	3.6 m	No. of. SPT	8 nos	REMARKS

GEO FOUNDATIONS AND STRUCTURES PVT LTD. Chennai-20

Note: SPT-Standard Penetration Test SS-Soil Sample, CR-Core Recovery , RQD-Rock Quality Designation

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location	: Guindy	**Drillhole Record - BH 6**	
Bore Hole No	: 6	Fig No. 6	
Type of Boring	: Calyx		
Ground Water Level	: 3.0 m on 23.04.2013	Start Date	: 22.04.2013
Termination Depth	: 11.0 m	End Date	: 22.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT"N" Blows/300mm	REMARKS
Silty **SAND**	Brown	Medium Dense, Granular		SPT-1	SS	2.00	2.00-2.45	5	6	9	15	
				SPT-2	SS	3.00	3.00-3.45	6	8	11	19	G.W.L
				SPT-3	SS	4.00	4.00-4.45	8	10	13	23	
			5.00									
SAND	Brown	Loose, Granular		SPT-4	SS	5.00	5.00-5.45	3	4	5	9	
			6.50	SPT-5	SS	6.50	6.50-6.95	3	3	3	6	
Sandy **CLAY**	Grey	Medium Stiff, Layered	8.00	SPT-6	SS	8.00	8.00-8.45	3	5	6	11	
		Stiff, Layered	9.50	SPT-7	SS	9.50	9.50-9.64	>50	-	-	>100	50/14 cm Penetration
Weathered rock			11.00	SPT-8	SS	11.00	11.00-11.07	>50	-	-	>100	50/7 cm Penetration

G.W.L on : 20.04.2013	3.00 m	No. of. SPT	8 nos	REMARKS

Note: SPT-Standard Penetration Test SS-Soil Sample,

CR-Core Recovery , RQD-Rock Quality Designation

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location	: Guindy
Bore Hole No	: 7
Type of Boring	: Calyx
Ground Water Level	: 4.5 m on 23.04.2013
Termination Depth	: 11.0 m

Drillhole Record - BH 7

Fig No. 7

Start Date : 22.04.2013

End Date : 22.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT 'N' Blows/300mm	SPT 'N' PROFILE	C.R (%)	R.Q.D(%)	REMARKS
Clayey SAND	Brown	Loose, Granular	2.00		SPT-1	SS	1.00	1.00-1.45	3	4	4	8				
					SPT-2	SS	2.00	2.00-2.45	4	7	7	14				
Silty SAND	Brown	Medium Dense, Granular	4.00		SPT-3	SS	3.00	3.00-3.45	6	8	11	19				
					SPT-4	SS	4.00	4.00-4.45	7	11	14	25				
SAND	Brown	Medium Dense, Granular	6.50		SPT-5	SS	5.00	5.00-5.45	9	13	16	29	G.W.L			
					SPT-6	SS	6.50	6.50-6.95	2	3	3	6				
Sandy CLAY	Grey	Medium Stiff, Layered	8.00		SPT-7	SS	8.00	8.00-8.45	4	4	5	9				
	Grey	Stiff, Layered	9.50		SPT-8	SS	9.50	9.50-9.12	>50	-	-	>100				50/12 cm Penetration
Weathered rock			11.00		SPT-9	SS	11.00	11.00-11.06	>50	-	-	>100				50/6 cm Penetration
G.W.L on : 23.04.2013	4.5 m	No. of. SPT			9 nos		REMARKS									

Note: SPT-Standard Penetration Test SS-Soil Sample, CR-Core Recovery , RQD-Rock Quality Designation

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location : Guindy
Bore Hole No : 8
Type of Boring : Calyx
Ground Water Level : 3.5 m on 24.04.2013
Termination Depth : 11.0 m

Drillhole Record - BH 8
Fig No. 8
Start Date : 23.04.2013
End Date : 23.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT "N" Blows/300mm	REMARKS
Clayey SAND	Brown	Loose, Granular			SPT-1	SS	1.00	1.00-1.45	4	3	6	9	
			2.00		SPT-2	SS	2.00	2.00-2.45	6	7	6	13	
Silty SAND	Brown	Medium Dense, Granular	3.00		SPT-3	SS	3.00	3.00-3.45	8	11	9	20	
Sandy SILT			4.00		SPT-4	SS	4.00	4.00-4.45	7	9	13	22	
SAND	Brown	Medium Dense, Granular			SPT-5	SS	5.00	5.00-5.45	9	10	12	22	
					SPT-6	SS	6.50	6.50-6.95	3	4	7	11	
			8.00		SPT-7	SS	8.00	8.00-8.45	4	8	12	20	
Clayey SAND	Grey	Medium Dense, Granular	9.50		SPT-8	SS	9.50	9.50-9.50	-	-	-	>100	Rebound
Weathered rock			11.00		SPT-9	SS	11.00	11.00-11.00	-	-	-	>100	Rebound

SPT 'N' PROFILE: 20, 40, 60, 80, 100

C.R (%) | R.Q.D(%)

G.W.L

G.W.L on : 24.04.2013	3.5 m	No. of. SPT	9 nos	REMARKS

Note: SPT-Standard Penetration Test SS-Soil Sample, CR-Core Recovery , RQD-Rock Quality Designation

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location	: Guindy	**Drillhole Record - BH 9**	
Bore Hole No	: BH -9	Fig No.9	
Type of Boring	: Calyx		
Ground Water Level	: 3.15 m on 25.04.2013	Start Date	: 24.04.2013
Termination Depth	: 11.00 m	End Date	: 24.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT'N' Blows/300mm	SPT 'N' PROFILE	C.R (%)	R.Q.D(%)	REMARKS
SAND	Gray	Loose, Granular			SPT-1		1.00	1.00-1.45	4	4	6	10				
			2.00		SPT-2	SS	2.00	2.00-2.45	6	6	7	13				
Silty SAND	Brown	Medium Dense, Granular			SPT-3	SS	3.00	3.00-3.45	8	9	10	19				GW.L
			5.00		SPT-4	SS	4.00	4.00-4.45	7	10	13	23				
					SPT-5	SS	5.00	5.00-5.45	9	11	13	24				
SAND	Gray	Medium Dense, Granular	6.50		SPT-6	SS	6.50	6.50-6.95	3	4	6	10				
Sandy CLAY	Gray	Stiff, Layered			SPT-7	SS	8.00	8.00-8.45	4	6	14	20				
		Very Stiff, Layered	9.50		SPT-8	SS	9.50	9.50-9.50	>100	-	-	>100				Rebound
Weathered rock					SPT-9	SS	11.00	11.00-11.00	>100	-	-	>100				Rebound
			11.00													

G.W.L on : 25.04.13	3.15 m	No. of. SPT	9 nos	REMARKS

Note: SPT-Standard Penetration Test SS-Soil Sample, UDS-Un Disturbed Sample CS-Core Sample CR-Core Recovery . RQD-Rock Quality Designation

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location	: Guindy	**Drillhole Record - BH 10**	
Bore Hole No	: BH -10	Fig No.10	
Type of Boring	: Calyx		
Ground Water Level	: 3.10 m on 20.04.2013	Start Date	: 19.04.2013
Termination Depth	: 10.00 m	End Date	: 19.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT 'N' Blows/300mm	SPT 'N' PROFILE	C.R (%)	R.Q.D(%)	REMARKS
SAND	Brown	Medium Dense, Granular			SPT-1	SS	1.00	1.00-1.45	6	10	13	23				
			2.00		SPT-2	SS	2.00	2.00-2.45	10	13	15	28				
Silty SAND	Brown	Medium Dense, Granular			SPT-3	SS	3.00	3.00-3.45	8	12	14	26				G.W.L
			4.00		SPT-4	SS	4.00	4.00-4.45	13	15	15	30				
SAND	Brown	Dense, Granular			SPT-5	SS	5.00	5.00-5.45	11	16	17	33				
			6.50		SPT-6	SS	6.50	6.50-6.95	4	3	3	6				
Sandy CLAY	Dark grey	Medium Stiff, Layered			SPT-7	SS	8.00	8.00-8.45	5	4	5	9				
		Stiff, Layered	9.50		SPT-8	SS	9.50	9.50-9.50	>100	-	-	>100				Rebound
Weathered rock					SPT-9	SS	10.00	10.00-10.00	>100	-	-	>100				Rebound
			10.00													

G.W.L on : 20.04.13	3.10 m	No. of. SPT	9 nos	REMARKS

Note: SPT-Standard Penetration Test SS-Soil Sample, UDS-Un Disturbed Sample CS-Core Sample CR-Core Recovery , RQD-Rock Quality Designation

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Client:M/s. VGN Infra India Pvt. Ltd.

M/s.GEO FOUNDATIONS AND STRUCTURES PVT. LTD.

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location	: Guindy	**Drillhole Record - BH 11**	
Bore Hole No	: BH -11	Fig No.11	
Type of Boring	: Calyx		
Ground Water Level	: 3.10 m on 21.04.2013	Start Date	: 20.04.2013
Termination Depth	: 9.50 m	End Date	: 20.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT 'N' Blows/300mm	SPT 'N' PROFILE	C.R (%)	R.Q.D(%)	REMARKS
Sandy CLAY	Brown	Medium Stiff, Layered			SPT-1		1.00	1.00-1.45	4	3	4	7				
			2.00		SPT-2	SS	2.00	2.00-2.45	8	9	11	20				
Silty SAND	Brown	Medium Dense, Granular			SPT-3	SS	3.00	3.00-3.45	11	12	10	22			GW.L	
			4.00		SPT-4	SS	4.00	4.00-4.45	14	16	17	33				
SAND	Brown	Dense, Granular			SPT-5	SS	5.00	5.00-5.45	12	14	20	34				
			6.50		SPT-6	SS	6.50	6.50-6.95	7	9	6	15				
Sandy CLAY	Grey	Stiff, Layered			SPT-7	SS	8.00	8.00-8.45	11	12	8	20				
		Very Stiff, Layered	9.50		SPT-8	SS	9.50	9.50-9.60	>50	-	-	>100				50/10 cm Penetration
Weathered rock																
G.W.L on : 21.04.13	3.10 m		No. of. SPT		8 nos			REMARKS								



Note: SPT-Standard Penetration Test SS-Soil Sample, UDS-Un Disturbed Sample CS-Core Sample CR-Core Recovery , RQD-Rock Quality Designation

Client:M/s. VGN Infra India Pvt. Ltd. *M/s.GEO FOUNDATIONS AND STRUCTURES PVT. LTD.*

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location	: Guindy	Drillhole Record - BH 12	
Bore Hole No	: BH -12	Fig No.12	
Type of Boring	: Calyx		
Ground Water Level	: 4.00 m on 25.04.2013	Start Date	: 24.04.2013
Termination Depth	: 11.00 m	End Date	: 24.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT 'N' Blows/300mm	SPT 'N' PROFILE	C.R (%)	R.Q.D(%)	REMARKS
Silty SAND	Brown	Medium Dense, Granular			SPT-1		1.00	1.00-1.45	4	6	9	15				
			2.00		SPT-2	SS	2.00	2.00-2.45	6	7	3	10				
SAND	Brown	Loose, Granular			SPT-3	SS	3.00	3.00-3.45	7	6	8	14				
	Brown	Medium Dense, Granular			SPT-4	SS	4.00	4.00-4.45	7	9	10	19				GW.L
			5.00		SPT-5	SS	5.00	5.00-5.45	10	13	9	22				
Silty SAND	Brown	Medium Dense, Granular														
			6.50		SPT-6	SS	6.50	6.50-6.95	3	4	7	11				
Clayey SAND	Grey	Medium Dense, Granular			SPT-7	SS	8.00	8.00-8.45	2	3	2	5				
	Grey	Loose, Granular	9.50		SPT-8	SS	9.50	9.50-9.62	>50	-	-	>100				50/12 cm Penetration
Weathered rock																
			11.00		SPT-9	SS	11.00	11.00-11.03	>50	-	-	>100				50/3 cm Penetration
G.W.L on : 25.04.13	4.00 m		No. of. SPT		9 nos											

SPT 'N' PROFILE scale: 20, 40, 60, 80, 100

Note: SPT-Standard Penetration Test SS-Soil Sample, UDS-Un Disturbed Sample CS-Core Sample CR-Core Recovery , RQD-Rock Quality Designation

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location	: Guindy
Bore Hole No	: BH -13
Type of Boring	: Calyx
Ground Water Level	: 4.5 m on 23.04.2013
Termination Depth	: 11.00 m

Drillhole Record - BH 13

Fig No.13

Start Date : 22.04.2013

End Date : 22.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT "N" Blows/300mm	SPT 'N' PROFILE	C.R (%)	R.Q.D(%)	REMARKS
Silty SAND	Brown	Medium Dense, Granular			SPT-1	SS	1.00	1.00-1.45	10	14	9	23				
					SPT-2	SS	2.00	2.00-2.45	6	7	9	16				
			3.00		SPT-3	SS	3.00	3.00-3.45	9	7	8	15				
SAND	Brown	Medium Dense, Granular			SPT-4	SS	4.00	4.00-4.45	4	6	9	15				GW.L
					SPT-5	SS	5.00	5.00-5.45	12	16	9	25				
			8.00		SPT-6	SS	6.50	6.50-6.95	9	7	12	19				
Clayey SAND	Dark grey	Medium Dense, Granular			SPT-7	SS	8.00	8.00-8.45	4	7	8	15				
			9.50		SPT-8	SS	9.50	9.50-9.59	>50	-	-	>100				50/9 cm Penetration
Weathered rock					SPT-9	SS	11.00	11.00-11.06	>50	-	-	>100				50/6 cm Penetration
			11.00													

G.W.L on : 23.04.13	4.50 m	No. of. SPT	9 nos	REMARKS

Note: SPT-Standard Penetration Test SS-Soil Sample. UDS-Un Disturbed Sample CS-Core Sample CR-Core Recovery RQD-Rock Quality Designation

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location	: Guindy	**Drillhole Record - BH 14**	
Bore Hole No	: BH -14	Fig No.14	
Type of Boring	: Calyx		
Ground Water Level	: 3.8 m on 25.04.2013	Start Date	: 24.04.2013
Termination Depth	: 11.00 m	End Date	: 24.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT"N" Blows/300mm	SPT 'N' PROFILE	C.R (%)	R.Q.D(%)	REMARKS
Silty **SAND**	Brown	Medium Dense, Granular			SPT-1		1.00	1.00-1.45	4	7	8	15				
			2.00		SPT-2	SS	2.00	2.00-2.45	4	9	11	20				
SAND	Brown	Medium Dense, Granular			SPT-3	SS	3.00	3.00-3.45	7	9	9	18				G.W.L
					SPT-4	SS	4.00	4.00-4.45	9	11	12	23				
					SPT-5	SS	5.00	5.00-5.45	7	11	8	19				
			6.50		SPT-6	SS	6.50	6.50-6.95	6	4	7	11				
Sandy **CLAY**	Dark grey	Stiff, Layered														
			8.00		SPT-7	SS	8.00	8.00-8.45	2	1	3	4				
Clayey **SAND**	Dark grey	Very Loose, Granular														
			9.50		SPT-8	SS	9.50	9.50-9.61	>50	-	-	>100				50/11 cm Penetration
Weathered rock																
			11.00		SPT-9	SS	11.00	11.00-11.07	>50	-	-	>100				50/7 cm Penetration

G.W.L on : 25.04.13	3.80 m	No. of. SPT	9 nos	REMARKS

Note: SPT-Standard Penetration Test SS-Soil Sample. UDS-Un Disturbed Sample CS-Core Sample CR-Core Recovery , RQD-Rock Quality Designation

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location	: Guindy
Bore Hole No	: BH -15
Type of Boring	: Calyx
Ground Water Level	: 3.5 on 25.04.2013
Termination Depth	: 11.00 m

Drillhole Record - BH 15

Fig No.15

Start Date : 24.04.2013

End Date : 24.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT 'N' Blows/300mm	SPT 'N' PROFILE	C.R (%)	R.Q.D(%)	REMARKS
SAND	Brown	Medium Dense, Granular			SPT-1		1.00	1.00-1.45	7	8	9	17				
			2.00		SPT-2	SS	2.00	2.00-2.45	6	10	13	23				
Silty SAND	Brown	Medium Dense, Granular			SPT-3	SS	3.00	3.00-3.45	8	11	9	20				G.W.L
			4.00		SPT-4	SS	4.00	4.00-4.45	12	13	11	24				
SAND	Brown	Medium Dense, Granular			SPT-5	SS	5.00	5.00-5.45	11	14	12	26				
			6.50		SPT-6	SS	6.50	6.50-6.95	6	7	9	16				
Clayey SAND	Gray	Medium Dense, Granular			SPT-7	SS	8.00	8.00-8.45	4	5	6	11				
			9.50		SPT-8	SS	9.50	9.50-9.61	>50	-	-	>100				50/11 cm Penetration
Weathered rock					SPT-9	SS	11.00	11.00-11.04	>50	-	-	>100				50/4 cm Penetration
			11.00													

G.W.L on : 25.04.13	3.50 m	No. of. SPT	9 nos	REMARKS

Note: SPT-Standard Penetration Test SS-Soil Sample. UDS-Un Disturbed Sample CS-Core Sample CR-Core Recovery , RQD-Rock Quality Designation

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Drillhole Record - BH 16

Fig No.16

Location	: Guindy		
Bore Hole No	: BH -16		
Type of Boring	: Calyx		
Ground Water Level	: 4 m on 25.04.2013	Start Date	: 24.04.2013
Termination Depth	: 11.00 m	End Date	: 24.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT"N" Blows/300mm	C.R (%)	R.Q.D(%)	REMARKS
Filled up Rubbish, Sand & Debris of Existing foundation			3.00	SPT-1	SS	1.00	1.00-1.45	3	4	5	9			Filled up Soil
				SPT-2	SS	2.00	2.00-2.45	4	5	6	11			
				SPT-3	SS	3.00	3.00-3.45	7	8	11	19			
SAND	Grey	Medium Dense, Granular	5.00	SPT-4	SS	4.00	4.00-4.45	9	11	12	23			G.W.L
				SPT-5	SS	5.00	5.00-5.45	7	9	10	19			
Silty SAND	Grey	Medium Dense, Granular	6.50	SPT-6	SS	6.50	6.50-6.95	5	9	7	16			
Sandy CLAY	Dark Grey	Stiff, Layered	8.00	SPT-7	SS	8.00	8.00-8.45	6	7	6	13			
Clayey SAND	Dark Grey	Medium Dense ,Granular	9.50	SPT-8	SS	9.50	9.50-9.64	>50	-	-	>100			50/14 cm Penetration
Weathered rock			11.00	SPT-9	SS	11.00	11.00-11.07	>50	-	-	>100			50/7 cm Penetration
G.W.L on : 25.04.13	4.00 m		No. of. SPT	9 nos		REMARKS								

SPT 'N' PROFILE: 20, 40, 60, 80, 100

Note: SPT-Standard Penetration Test SS-Soil Sample. UDS-Un Disturbed Sample CS-Core Sample CR-Core Recovery , RQD-Rock Quality Designation

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location	: Guindy	**Drillhole Record - BH 17**	
Bore Hole No	: BH -17	Fig No.17	
Type of Boring	: Calyx		
Ground Water Level	: 4 m on 26.04.2013	Start Date	: 25.04.2013
Termination Depth	: 11.00 m	End Date	: 25.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	LEGEND	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT 'N' Blows/300mm	SPT 'N' PROFILE	C.R (%)	R.Q.D(%)	REMARKS
SAND	Gray	Loose, Granular			SPT-1	SS	1.00	1.00-1.45	4	5	4	9				
	Gray	Medium Dense, Granular	4.00		SPT-2	SS	2.00	2.00-2.45	7	6	8	14				
					SPT-3	SS	3.00	3.00-3.45	9	8	10	18				
					SPT-4	SS	4.00	4.00-4.45	11	10	13	23				G.W.L
Silty SAND	Gray	Medium Dense, Granular	6.50		SPT-5	SS	5.00	5.00-5.45	13	10	15	25				
					SPT-6	SS	6.50	6.50-6.95	4	5	7	12				
Sandy CLAY	Dark Gray	Stiff, Layered	9.50		SPT-7	SS	8.00	8.00-8.45	3	7	9	16				
					SPT-8	SS	9.50	9.50-9.64	>50	-	-	>100				50/14 cm Penetration
Weathered rock			11.00		SPT-9	SS	11.00	11.00-11.07	>50	-	-	>100				50/7 cm Penetration
G.W.L on : 26.04.13	4.00 m		No. of. SPT		9 nos											REMARKS

Note: SPT-Standard Penetration Test SS-Soil Sample, UDS-Un Disturbed Sample CS-Core Sample CR-Core Recovery RQD-Rock Quality Designation

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location	: Guindy	**Drillhole Record - BH 18**	
Bore Hole No	: BH -18	Fig No.18	
Type of Boring	: Calyx		
Ground Water Level	: 3.90 on 27.04.2013	Start Date	: 25.04.2013
Termination Depth	: 11.00 m	End Date	: 26.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT"N" Blows/300mm	C.R (%)	R.Q.D(%)	REMARKS
Filled up Rubbish, Sand & Debris of Existing foundation			2.00			1.00								
Silty SAND	Grey	Medium Dense, Granular		SPT-1	SS	2.00	2.00-2.45	6	8	9	17			
				SPT-2	SS	3.00	3.00-3.45	9	11	14	25			
	Grey	Dense, Granular	5.00	SPT-3	SS	4.00	4.00-4.45	12	16	17	33			G.W.L
SAND	Grey	Dense, Granular	6.50	SPT-4	SS	5.00	5.00-5.45	10	15	19	34			
				SPT-5	SS	6.50	6.50-6.95	3	3	4	7			
Sandy CLAY	Grey	Medium Stiff, Layered		SPT-6	SS	8.00	8.00-8.45	4	6	8	14			
	Grey	Stiff, Layered	9.50	SPT-7	SS	9.50	9.50-9.50	>50	-	-	>100			Rebound
Weathered rock			11.00	SPT-8	SS	11.00	11.00-11.00	>50			>100			Rebound

SPT 'N' PROFILE: 20, 40, 60, 80, 100

G.W.L on : 27.04.13	3.90 m	No. of. SPT	8 nos	REMARKS

Note: SPT-Standard Penetration Test SS-Soil Sample. UDS-Un Disturbed Sample CS-Core Sample CR-Core Recovery , RQD-Rock Quality Designation

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Project : Soil Investigation for the Proposed Structure (2 Basement + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

GEO FOUNDATIONS & STRUCTURES PVT. LTD

Location	: Guindy
Bore Hole No	: BH -19
Type of Boring	: Calyx
Ground Water Level	: 3.90 on 27.04.2013
Termination Depth	: 12.50 m

Drillhole Record - BH 19

Fig No.19

Start Date : 25.04.2013

End Date : 26.04.2013

SOIL DESCRIPTION	COLOUR	STRUCTURE	GROUND LEVEL (m)	TEST NO	SAMPLE TYPE	DEPTH (m)	TEST DEPTH(m)	PENETRATION VALUES 15cm	30cm	45cm	SPT"N" Blows/300mm	C.R (%)	R.Q.D(%)	REMARKS
Silty **SAND**	Brown	Loose, Granular		SPT-1		1.00	1.00-1.45	4	4	6	10			
			2.00	SPT-2	SS	2.00	2.00-2.45	6	7	11	18			
	Brown	Medium Dense, Granular		SPT-3	SS	3.00	3.00-3.45	8	10	16	26			
				SPT-4	SS	4.00	4.00-4.45	6	8	13	21			G.W.L
				SPT-5	SS	5.00	5.00-5.45	7	9	16	25			
			6.50	SPT-6	SS	6.50	6.50-6.95	3	3	4	7			
Sandy **CLAY**	Brownish gray	Medium Stiff, Layered		SPT-7	SS	8.00	8.00-8.45	6	8	11	19			
		Very Stiff, Layered	9.50	SPT-8	SS	9.50	9.50-9.57	>50	-	-	>100			50/7 cm Penetration
Weathered rock				SPT-9	SS	11.00	11.00-11.04	>50	-	-	>100			50/4 cm Penetration
			12.50	SPT-10	SS	12.50	12.50-12.50	>50	-	-	>100			Rebound

SPT 'N' PROFILE: 20 | 40 | 60 | 80 | 100

G.W.L on : 27.04.13	3.90 m	No. of. SPT	10 nos	REMARKS

Note: SPT-Standard Penetration Test SS-Soil Sample. UDS-Un Disturbed Sample CS-Core Sample CR-Core Recovery RQD-Rock Quality Designation

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

APPENDIX – II

LABORATORY TEST RESULTS

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. * CHENNAI-20

TEST RESULTS

Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.

Boring Start: 18.04.2013
Boring End : 19.04.2013

Termination Depth
12.50 m

Table No.
1

Location
Guindy

G.W.T
4.20 m on 20.04.2013

Bore-Hole No.
1

N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	GRAIN SIZE ANALYSIS				ATTERBERG LIMITS			DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	SHEAR PARAMETERS		
				IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX						TEST METHOD	C in Kg/cm²	Φ in degrees
24	1.00	SPT-1	Silty Clayey **SAND**	SC-CL	0	50	50	32	12	20			14					
32	2.00	SPT-2	Silty **SAND**	SM	4	53	43	10	Non-Plastic				11	2.56				
25	3.00	SPT-3	Silty **SAND**	SM	1	94	5						12			DS		31
5	4.00	SPT-4	**SAND**	SW	0	99	1						13					
14	5.00	SPT-5	Silty **SAND**	SM	1	93	6						23					
8	6.50	SPT-6	Sandy **CLAY**	CI-SC				45	14	31			32		18			
15	8.00	SPT-7	Sandy **CLAY**	CI-SC				48	15	33			31	2.59				
16	9.50	SPT-8	Sandy **CLAY**	CI-SC				43	14	29			42			UCS	0.91	
>100	11.00	SPT-9	**Weathered rock**															
>100	12.00	SPT-10	**Weathered rock**															
>100	12.50	SPT-11	**Weathered rock**															

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**					Boring Start: 19.04.2013 Boring End : 20.04.2013				Termination Depth 13.50 m				Table No. 2		
								Location Guindy				G.W.T 3.80 m on 21.04.2013				Bore-Hole No. 2		
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS								SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
16	1.00	SPT-1	Sandy **CLAY**	CI-SC				49	13	36			29					
18	2.00	SPT-2	Sandy **CLAY**	CI-SC				50	13	33			26	2.59				
22	3.00	SPT-3	Silty **SAND**	SM	0	92	8						11			DS		32
24	4.00	SPT-4	Silty **SAND**	SM	4	86	10						11					
25	5.00	SPT-5	Silty **SAND**	SM	2	92	6						19	2.54				
10	6.50	SPT-6	Sandy **CLAY**	CI-SC				48	13	29			35					
13	8.00	SPT-7	Sandy **CLAY**	CI-SC				49	13	31			28					
15	9.50	SPT-8	Sandy **CLAY**	CH-SC				62	15	49			37					
>100	11.00	SPT-9	**Weathered rock**	SM	3	84	13						19			DS		40
>100	12.50	SPT-10	**Weathered rock**															
>100	13.50	SPT-11	**Weathered rock**															

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**	Boring Start: 19.04.2013 Boring End : 20.04.2013				Termination Depth 12.50 m					Table No. 3				
				Location Guindy				G.W.T 4.10 m on 21.04.2013					Bore-Hole No. 3					
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS									SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
18	1.00	SPT-1	Silty **SAND**	SM	3	89	8						18					
17	2.00	SPT-2	Silty Clayey **SAND**	SC-CL	0	61	39	26	8	18			12	2.52				
21	3.00	SPT-3	Silty **SAND**	SM	1	90	9						14			DS		32
19	4.00	SPT-4	Silty **SAND**	SM	3	89	8						16					
22	5.00	SPT-5	Silty **SAND**	SM	4	90	6						22					
15	6.50	SPT-6	Sandy **CLAY**	CI				49	16	33			33	2.53	34			
18	8.00	SPT-7	Sandy **CLAY**	CI				48	15	33			32			UCS	0.97	
>100	9.50	SPT-8	**Weathered rock**															
>100	11.00	SPT-9	**Weathered rock**															
>100	12.50	SPT-10	**Weathered rock**															

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**	Boring Start: 20.04.2013 Boring End : 20.04.2013	Termination Depth 9.50 m	Table No. 4
				Location Guindy	G.W.T 4.60 m on 21.04.2013	Bore-Hole No. 4

N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	GRAIN SIZE ANALYSIS				ATTERBERG LIMITS			DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	SHEAR PARAMETERS		
				IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX						TEST METHOD	C in Kg/cm²	Φ in degrees
18	1.00	SPT-1	Silty **SAND**	SM	1	92	7						19					
15	2.00	SPT-2	Silty **SAND**	SM	3	76	21						25	2.56				
19	3.00	SPT-3	**SAND**	SP	1	96	3						24			DS		32
20	4.00	SPT-4	Silty **SAND**	SM	0	87	13						27					
20	5.00	SPT-5	Silty **SAND**	SM	0	94	6						21			DS		31
10	6.50	SPT-6	Sandy **CLAY**	CL-SC				33	11	22			31	2.61	19			
11	8.00	SPT-7	**SAND**	SP	0	99	1						39					
>100	9.50	SPT-8	**Weathered rock**															

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. ★ Chennai-20

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**	Boring Start: 20.04.2013 Boring End : 20.04.2013				Termination Depth 9.50 m				Table No. 5		
				Location Guindy				G.W.T 3.60 m on 21.04.2013				Bore-Hole No. 5		
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS						
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %
17	1.00	SPT-1	Silty **SAND**	SM	0	89	11						30		
19	2.00	SPT-2	Silty **SAND**	SM	1	91	8						24	2.53	
26	3.00	SPT-3	Silty **SAND**	SM	3	88	9						22		
20	4.00	SPT-4	Silty **SAND**	SM	2	88	10						23		
30	5.00	SPT-5	Silty **SAND**	SM	1	94	5						13	2.56	
15	6.50	SPT-6	Sandy **CLAY**	CL-SC				30	13	27			33		
10	8.00	SPT-7	Sandy **CLAY**	CL-SC				25	12	13			38		
>100	9.50	SPT-8	**Weathered rock**												

SHEAR PARAMETERS		
TEST METHOD	C in Kg/cm²	Φ in degrees
DS		32
UCS		

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**	Boring Start: 22.04.2013 Boring End : 22.04.2013				Termination Depth 11.00 m				Table No. 6					
				Location Guindy				G.W.T 3.00 m on 23.04.2013				Bore-Hole No. 6					
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS								SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
	1.00																	
15	2.00	SPT-1	Silty **SAND**	SM	1	92	7						13					
19	3.00	SPT-2	Silty **SAND**	SM	5	90	5						23			DS		32
23	4.00	SPT-3	Silty **SAND**	SM	8	85	7						17	2.56				
9	5.00	SPT-4	**SAND**	SP	1	98	1						17					
6	6.50	SPT-5	Sandy **CLAY**	CI-SC				46	12	34			50					
11	8.00	SPT-6	Sandy **CLAY**	CH-SC				59	14	45			36	2.55				
>100	9.50	SPT-7	**Weathered rock**															
>100	11.00	SPT-8	**Weathered rock**															

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

GEO FOUNDATIONS AND STRUCTURES PVT LTD

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**	Boring Start: 22.04.2013 Boring End : 22.04.2013				Termination Depth 11.00 m				Table No. 7					
				Location Guindy				G.W.T 4.50 m on 23.04.2013				Bore-Hole No. 7					
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS								SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
8	1.00	SPT-1	Clayey **SAND**	SC-CL	3	67	30	31	10	21			33					
14	2.00	SPT-2	Silty **SAND**	SM	0	90	10						17	2.54				
19	3.00	SPT-3	Silty **SAND**	SM	9	81	10						13			DS		32
25	4.00	SPT-4	**SAND**	SP	0	99	1						45					
29	5.00	SPT-5	**SAND**	SP	0	97	3						15					
6	6.50	SPT-6	Sandy **CLAY**	CI-SC				39	12	27			51	2.61				
9	8.00	SPT-7	Sandy **CLAY**	CI-SC				36	12	24			36					
>100	9.50	SPT-8	**Weathered rock**															
>100	11.00	SPT-9	**Weathered rock**															

GEO-FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**					Boring Start: 23.04.2013 Boring End : 23.04.2013				Termination Depth 11.00 m				Table No. 8		
								Location Guindy				G.W.T 3.50 m on 24.04.2013				Bore-Hole No. 8		
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS								SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
9	1.00	SPT-1	Clayey **SAND**	SC-CL	0	62	38	33	12	21			7					
13	2.00	SPT-2	Silty **SAND**	SM	0	94	6						7					
20	3.00	SPT-3	Sandy **SILT**	ML-SM	0	22	78	15	Non-Plastic				5	2.53				
22	4.00	SPT-4	**SAND**	SP	0	99	1						5			DS		34
22	5.00	SPT-5	**SAND**	SP	0	98	2						8					
11	6.50	SPT-6	**SAND**	SP	0	96	4						23					
20	8.00	SPT-7	Clayey **SAND**	SC-CI	2	61	37	37	9	28			23					
>100	9.50	SPT-8	**Weathered rock**															
>100	11.00	SPT-9	**Weathered rock**															

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

GEO FOUNDATIONS AND STRUCTURES PVT LTD

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**	Boring Start: 24.04.2013 Boring End : 24.04.2013	Termination Depth 11.00 m	Table No. 9
				Location Guindy	G.W.T 3.15 m on 25.04.2013	Bore-Hole No. 9

N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	GRAIN SIZE ANALYSIS				ATTERBERG LIMITS			DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	SHEAR PARAMETERS		
				IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX						TEST METHOD	C in Kg/cm²	Φ in degrees
10	1.00	SPT-1	**SAND**	SP	0	98	2						14					
13	2.00	SPT-2	Silty **SAND**	SM	0	94	6						8			DS		31
19	3.00	SPT-3	Silty **SAND**	SM	0	95	5						23					
23	4.00	SPT-4	Silty **SAND**	SM	0	92	8						13					
24	5.00	SPT-5	**SAND**	SP	0	96	4						14	2.56				
10	6.50	SPT-6	Sandy **CLAY**	CI-SC				45	14	31			29					
20	8.00	SPT-7	Sandy **CLAY**	CI-SC				38	12	26			31		13			
>100	9.50	SPT-8	**Weathered rock**															
>100	11.00	SPT-9	**Weathered rock**															

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**	Boring Start: 19.04.2013 Boring End : 19.04.2013	Termination Depth 10.00 m	Table No. 10
				Location Guindy	G.W.T 3.10 m on 20.04.2013	Bore-Hole No. 10

				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS								SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
23	1.00	SPT-1	**SAND**	SP	2	94	4						17					
28	2.00	SPT-2	Silty **SAND**	SM	1	90	9						21	2.56				
26	3.00	SPT-3	Silty **SAND**	SM	0	95	5						21			DS		33
30	4.00	SPT-4	**SAND**	SP	2	95	3						27					
33	5.00	SPT-5	**SAND**	SP	3	94	3						23					
6	6.50	SPT-6	Sandy **CLAY**	CI-SC				48	15	31			37	2.61				
9	8.00	SPT-7	Sandy **CLAY**	CI-SC				47	15	32			42		31	UCS	0.93	
>100	9.50	SPT-8	**Weathered rock**															
>100	10.00	SPT-9	**Weathered rock**															

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-96

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**	Boring Start: 20.04.2013 Boring End : 20.04.2013				Termination Depth 9.50 m				Table No. 11						
				Location Guindy				G.W.T 3.10 m on 21.04.2013				Bore-Hole No. 11						
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS								SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
7	1.00	SPT-1	Sandy **CLAY**	CI-SC				39	12	27			32					
20	2.00	SPT-2	Silty **SAND**	SM	0	93	7						24	2.56				
22	3.00	SPT-3	Silty **SAND**	SM	3	85	12						22			DS		30
33	4.00	SPT-4	**SAND**	SP	0	97	3						20					
34	5.00	SPT-5	**SAND**	SP	0	98	2						37					
15	6.50	SPT-6	Sandy **CLAY**	CI-SC				42	13	28			31	2.59	38			
20	8.00	SPT-7	Sandy **CLAY**	CI-SC				45	14	32			43			UCS	0.93	
>100	9.50	SPT-8	**Weathered rock**															

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**					Boring Start: 24.04.2013 Boring End : 24.04.2013				Termination Depth 11.00 m				Table No. 12		
								Location Guindy				G.W.T 4.00 m on 25.04.2013				Bore-Hole No. 12		
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS								SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
15	1.00	SPT-1	Silty **SAND**	SM	0	87	13						25					
10	2.00	SPT-2	**SAND**	SP	0	98	2						19	2.51		DS		31
14	3.00	SPT-3	**SAND**	SP	0	99	1						21					
19	4.00	SPT-4	**SAND**	SP	0	99	1						20					
22	5.00	SPT-5	Silty **SAND**	SM	0	91	9						16					
11	6.50	SPT-6	Clayey **SAND**	SC-CL				29	10	21			30	2.54				
5	8.00	SPT-7	Clayey **SAND**	SC-CL	4	64	32	29	10	19			28					
>100	9.50	SPT-8	**Weathered rock**															
>100	11.00	SPT-9	**Weathered rock**															

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**					Boring Start: 22.04.2013 Boring End : 22.04.2013				Termination Depth 11.00 m				Table No. 13		
								Location Guindy				G.W.T 4.50 m on 23.04.2013				Bore-Hole No. 13		
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS								SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
23	1.00	SPT-1	Silty **SAND**	SM	0	70	30						13					
16	2.00	SPT-2	Silty **SAND**	SM	0	95	5						5					
15	3.00	SPT-3	**SAND**	SP	0	97	3						10	2.54		DS		30
15	4.00	SPT-4	**SAND**	SP	0	96	4						10					
25	5.00	SPT-5	**SAND**	SP	0	98	2						10					
19	6.50	SPT-6	**SAND**	SP	0	99	1						14					
15	8.00	SPT-7	Clayey **SAND**	SC-CL	0	64	36	30	10	20			14	2.51				
>100	9.50	SPT-8	**Weathered rock**															
>100	11.00	SPT-9	**Weathered rock**															

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**					Boring Start: 24.04.2013 Boring End : 24.04.2013				Termination Depth 11.00 m				Table No. 14		
								Location Guindy				G.W.T 3.80 m on 25.04.2013				Bore-Hole No. 14		
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS								SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
15	1.00	SPT-1	Silty **SAND**	SM	0	82	18						17					
20	2.00	SPT-2	**SAND**	SP	0	97	3						83	2.54				
18	3.00	SPT-3	**SAND**	SP	0	98	2						21			DS		31
23	4.00	SPT-4	**SAND**	SP	0	99	1						19					
19	5.00	SPT-5	**SAND**	SP	0	100	0						14					
11	6.50	SPT-6	Sandy **CLAY**	SC-CL				33	12	24			36		12			
4	8.00	SPT-7	Clayey **SAND**	SC-CL	4	64	32	21	11	13			26					
>100	9.50	SPT-8	**Weathered rock**															
>100	11.00	SPT-9	**Weathered rock**															

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. * Chennai-96

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**					Boring Start: 24.04.2013 Boring End : 24.04.2013				Termination Depth 11.00 m				Table No. 15		
								Location Guindy				G.W.T 3.50 m on 25.04.2013				Bore-Hole No. 15		
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS								SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
17	1.00	SPT-1	**SAND**	SP	0	99	1						1					
23	2.00	SPT-2	Silty **SAND**	SM	0	94	6						16					
23	3.00	SPT-3	Silty **SAND**	SM	0	95	5						18	2.51				
24	4.00	SPT-4	**SAND**	SP	0	98	2						17			DS		33
26	5.00	SPT-5	**SAND**	SP	0	99	1						19					
16	6.50	SPT-6	Clayey **SAND**	SC-CL				32	11	21			36					
11	8.00	SPT-7	Clayey **SAND**	SC-CL	1	63	36	31	12	19			21	2.54	9			
>100	9.50	SPT-8	**Weathered rock**															
>100	11.00	SPT-9	**Weathered rock**															

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**					Boring Start: 24.04.2013 Boring End : 24.04.2013				Termination Depth 11.00 m				Table No. 16		
								Location Guindy				G.W.T 4.00 m on 26.04.2013				Bore-Hole No. 16		
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS								SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
9	1.00	SPT-1	Filled up Soil															
11	2.00	SPT-2	Filled up Soil															
19	3.00	SPT-3	**SAND**	SP	0	98	2						14					
23	4.00	SPT-4	**SAND**	SP	0	96	4						12	2.56				
19	5.00	SPT-5	Silty **SAND**	SM	0	93	7						50			DS		33
16	6.50	SPT-6	Sandy **CLAY**	CI-SC				40	12	28			34					
13	8.00	SPT-7	Clayey **SAND**	SC-CL	0	65	35	30	8	22			24					
>100	9.50	SPT-8	**Weathered rock**															
>100	11.00	SPT-9	**Weathered rock**															

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. ★ Chennai-20

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**					Boring Start: 25.04.2013 Boring End : 25.04.2013				Termination Depth 11.00 m				Table No. 17		
								Location Guindy				G.W.T 4.00 m on 26.04.2013				Bore-Hole No. 17		
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS								SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
9	1.00	SPT-1	**SAND**	SP	0	97	3						15					
14	2.00	SPT-2	**SAND**	SP	0	98	2						15					
18	3.00	SPT-3	**SAND**	SP	0	96	4						16	2.56				
23	4.00	SPT-4	Silty **SAND**	SM	0	95	5						11			DS		35
23	5.00	SPT-5	Silty **SAND**	SM	0	95	5						14					
12	6.50	SPT-6	Sandy **CLAY**	CI-SC				44	12	22			29					
16	8.00	SPT-7	Sandy **CLAY**	CI-SC				41	10	31			22		13	UCS	0.81	
>100	9.50	SPT-8	**Weathered rock**															
>100	11.00	SPT-9	**Weathered rock**															

GEO FOUNDATIONS AND STRUCTURES PVT. LTD.

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**					Boring Start: 25.04.2013 Boring End : 26.04.2013				Termination Depth 11.00 m				Table No. 18		
								Location Guindy				G.W.T 3.90 m on 27.04.2013				Bore-Hole No. 18		
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS								SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
-	1.00	SPT-1	Filled up Soil															
17	2.00	SPT-2	Silty **SAND**	SM	0	93	7						14					
25	3.00	SPT-3	Silty **SAND**	SM	9	85	6						25			DS		30
33	4.00	SPT-4	Silty **SAND**	SM	0	91	9						11	2.54				
34	5.00	SPT-5	**SAND**	SP	1	95	4						14					
7	6.50	SPT-6	Sandy **CLAY**	CI-SC	1	43	56	45	14	31			26		23			
14	8.00	SPT-7	Sandy **CLAY**	CI-SC	5	43	52	41	13	28			26			UCS	0.75	
>100	9.50	SPT-8	**Weathered rock**															
>100	11.00	SPT-9	**Weathered rock**															
-	12.00	SPT-10	**Weathered rock**															

Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. Chennai-20

TEST RESULTS			**Project : Soil Investigation for the Proposed Structure (2 Basements + Stilt + 14 Floors) at Block No.2, Thiru. Vi. Ka Industrial Estate, Guindy, Chennai.**	Boring Start: 25.04.2013 Boring End : 26.04.2013				Termination Depth 12.50 m				Table No. 19		
				Location Guindy				G.W.T 3.80 m on 27.04.2013				Bore-Hole No. 19		
				GRAIN SIZE ANALYSIS				ATTERBERG LIMITS									SHEAR PARAMETERS		
N VALUE	DEPTH (m)	SAMPLE	SOIL DESCRIPTION	IS. CLASSIFICATION	GRAVEL, %	SAND, %	SILT & CLAY, %	LIQUID LIMIT,%	PLASTIC LIMIT,%	PLASTICITY INDEX	DRY DENSITY, gm/cc	WET DENSITY, gm/cc	WATER CONTENT, %	SPECIFIC GRAVITY	FREE SWELL INDEX, %	TEST METHOD	C in Kg/cm²	Φ in degrees
10	1.00	SPT-1	Silty **SAND**	SP	4	91	5											
18	2.00	SPT-2	Silty **SAND**	SM	0	94	6						24					
26	3.00	SPT-3	Silty **SAND**	SM	1	88	11						26	2.51		DS		34
21	4.00	SPT-4	Silty **SAND**	SM	0	95	5						18					
25	5.00	SPT-5	Silty **SAND**	SM	0	91	9						13					
7	6.50	SPT-6	Sandy **CLAY**	CI				44	14	29			27		21			
19	8.00	SPT-7	Sandy **CLAY**	CI				48	15	34			23			UCS	0.82	
>100	9.50	SPT-8	**Weathered rock**															
>100	11.00	SPT-9	**Weathered rock**															
>100	12.50		**Weathered rock**															

FOUNDATIONS AND STRUCTURES PVT LTD. * GEO Chennai-20

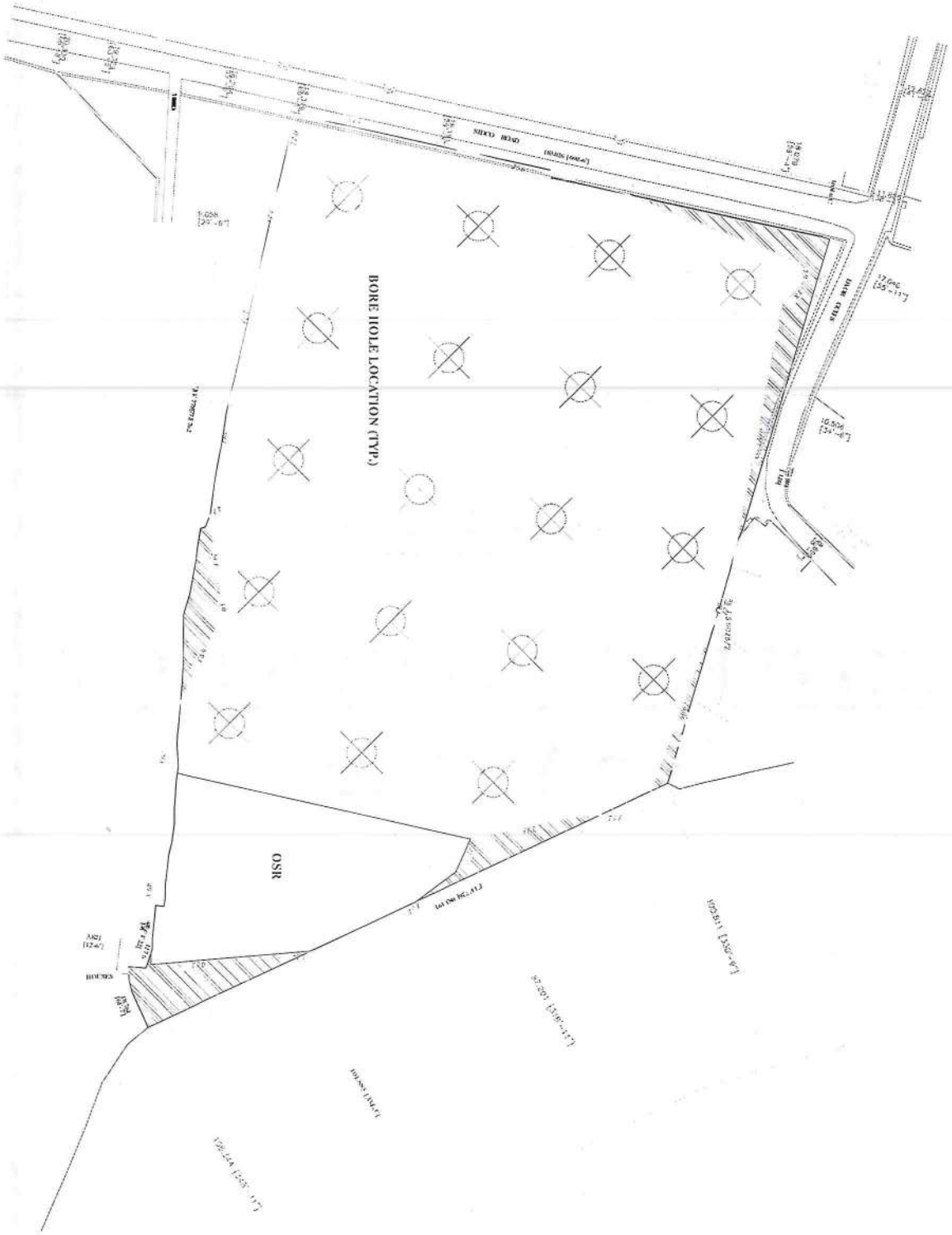
Note: Type of Sample: SPT- Standard Penetration Test

Test Method: UCS- UnConfined Compressive Strength, DS-Direct Shear

APPENDIX-III

BOREHOLES LOCATION DRAWING

GEO FOUNDATIONS AND STRUCTURES PVT. LTD. ★ Chennai-20



GEO FOUNDATIONS AND STRUCTURES PVT LTD
Chennai-20

IN THE COURT OF THE XI ADDITIONAL SPECIAL COURT FOR CBI CASES, CHENNAI-1

(CBI Cases Relating to Banks and Financial Institutions)

PRESENT: Thiru S .Jawahar, B.L.

XI Additional Special Judge for CBI Cases

Tuesday the 30th Day of April 2019

Crl.M.P.No.4018/2019

in

R.C.No.50(A)/2016/CBI/ACB/Chennai.

State by:
Central Bureau of Investigation

Bank Securities and Fraud Cell,

Bangalore ... Complainant.

-vs-

1. Shri Leon Therattil (A1)
Deputy General Manager,
State Bank of India, Nireekshan Bhavan,
Corporate Centre, Hyderabad -500 019.
Telengana State.

2. Shri N.Ramadass(A2)
Chief Manager (Retired)
State Bank of India, Stressed Assets Recovery Branch,
Bangalore, Karnataka State.

3.Shri D.P.Gupta (A3)
Chief Operating Officer, (Retired),

M/s.Hindustan Teleprinters LImited,
Guindy Industrial Estate, Guindy, Chennai
Taminadu State

4.Shri V.Patish Devadoss (A4)
Managing Directors
M/s.VGN Property Developers Pvt.Ltd.,
No.153, Wallace Garden, Nungambakkam,
Chennai-600 006.
Tamilnadu State.

5. M/s.VGN Property Developers Pvt.Ltd., (A5)
rep.by A4,
No.153 Wallace Garden,
Nungambakkam,
Chennai-600 006.
Tamilnadu State. ... Accused.

This petition coming on this day for hearing before me, in the presence of M/s.Thiru . M.V. Dinakar, Special Prosecutor and upon hearing their arguments, upon perusing the petition other connected material papers thereto, this court delivered the following:

ORDER

The petitioner/Complainant CBI has filed this petition u/s.173 of Cr.P.C. to accept the closure report and pass order for return of the documents D1 to D459 which were seized/collected during the course of investigation to the concerned persons/departments.

The investigation has not established the allegations leveled against A1 to A5, On the basis of statement of witnesses LW1 to LW89 and documents D1 to D-459 collected during the investigation there is no sufficient evidence to launch prosecution against the

accused persons for the offences of Criminal Conspiracy, Cheating , Criminal misconduct.

As per the oral and documentary evidence the allegations in the FIR to the effect that the accused persons have caused wrongful loss to the Government of India to the tune of Rs.115.00 Crore and obtaining corresponding wrongful gain to themselves is not substantiated with prosecutable evidence. Hence the final report recommending closure of the case.

This Court perused the documents D1 to D459 and the statements recorded u/s.161 Cr.P.C of witnesses W1 to W80 are submitted along with the final report and there are no statements for W81 to W89 since they are investigation officer. In this case there is no defacto complainant and there is no necessity to give notice to closure the FIR. Hence this court is convinced to accept the closure of the case and ordered to return of the documents D1 to D459 which were seized/collected during the course of investigation for returning the same by the CBI to the concerned persons.

In the result this petition is allowed.

Dictated to the steno-typist directly and typed by her in the computer corrected and pronounced by me in Open Court 30th day of April 2019.

30/04/2019

XI Additional Special Judge for CBI Cases.

CERTIFIED TO BE TRUE COPY
A Rajasekaran
Superintendent of Copyists
X Addl. Pl. Court, Chennai-1

ITEM NO.29+34 COURT NO.2 SECTION II-C

S U P R E M E C O U R T O F I N D I A
RECORD OF PROCEEDINGS

Item No.29
Criminal Appeal No(s). 1269/2017

090117

DIRECTORATE OF ENFORCEMENT Appellant(s)

VERSUS

M/S OBULAPURAM MINING COMPANY PVT LTD Respondent(s)
([ONLY IA NO. 142033/2022 IN SLP(CRL.) NO.-3474/2020 AND SLP(CRL.) NO. -10627/2019 ARE TO BE LISTED ON 02.12.2022])

WITH
SLP(Crl) No. 3474/2020 (II-C)
(FOR MODIFICATION OF COURT ORDER ON IA 142033/2022

SLP(Crl) No. 10627/2019 (II-C)
IA No. 153931/2022 - APPROPRIATE ORDERS/DIRECTIONS
IA No. 145024/2021 - CLARIFICATION/DIRECTION)

Certified to be true Copy
Assistant Registrar (Judl.)
2020
Supreme Court of India

Item No.34
Criminal Appeal No(s). 391-392/2018

[ONLY I.A. NO. 169392/2022 IA LISTED UNDER THIS ITEM ALONG WITH ITEM NO. 29 I.E. Crl.A. No. 1269/2017]

Date : 02-12-2022 These appeals were called on for hearing today.

CORAM :
HON'BLE MR. JUSTICE SANJAY KISHAN KAUL
HON'BLE MR. JUSTICE ABHAY S. OKA

For Appellant(s) Mr. Tushar Mehta, SG
Mr. K.M. Natraj, ASG
Mr. Zoheb Hossain, Adv.
Ms. Deepabali Dutta, Adv.
Mr. Kanu Agrawal, Adv.
Mr. Rajan Kumar Chourasia, Adv.
Mr. Nakul Chengappa K.K., Adv.
Ms. Akriti A Manubarwala, Adv.
Mr. Mukesh Kumar Maroria, AOR

Mr. Kapil Sibal, Sr. Adv.
Mr. Siddhartha Dave, Sr. Adv.
Ms. Ranjeeta Rohatgi, AOR
Mr. Sourabh Tandon, Adv.

For Respondent(s) Mr. Mukul Rohatgi, Sr. Adv.
Mr. Aditya Dewan, Adv.
Mr. Abhinav Agrawal, AOR

Mr. Atul Agarwal, Adv.
Mr. Tarun Singh Rathore, Adv.
Mr. Shailender Singh, Adv.
Mr. Kumar Dushyant Singh, AOR

Mr. Parmatma Singh, AOR

Mr. B. Krishna Prasad, AOR

Mr. Syed Mehdi Imam, AOR

Mr. Devanshu Yadav, Adv.
Mr. Avadh Bihari Kaushik, AOR

Mr. Chand Qureshi, AOR
Mr. Rama Kant Sharma, Adv.
Mr. Sanjay Saini, Adv.
Mr. Nitin Raghuvanshi, Adv.
Dr. Ramkishor Choudhary, Adv.

UPON hearing the counsel the Court made the following

O R D E R

29.1
SLP(Crl) No. 3474/2020 (II-C)

Learned Solicitor General has brought to our attention the order dated 16.12.2021 in SLP [CRL.] No.5596/2021 where one of us (Hon. Sanjay Kishan Kaul, J.) had recused and the present case relates to the predicate offence in respect of the same matter.

List before a Bench of one of us (Hon. Sanjay Kishan Kaul, J.) is not a Member.

Insofar as the urgent listing now is concerned, it is the prerogative of the Hon'ble the Chief Justice of India.

IA No. 153931/2022 - APPROPRIATE ORDERS/DIRECTIONS
IA No. 145024/2021 - CLARIFICATION/DIRECTION IN

SLP(Crl) No. 10627/2019

Issue notice which is accepted by the learned counsel for the State.

Learned Solicitor General fairly states that since there is a closure report in respect of the predicate offence which has been accepted, the present proceeding will not survive and consequently the ECIR No.CEZO/01/2017 stands quashed.

The application along with the Special Leave Petition stand disposed of.

Criminal Appeal No(s). 391-392/2018

Issue notice which is accepted by learned counsel for the respondent.

Learned Solicitor General fairly states that since the proceedings before this Court arise from an order of attachment and there is acquittal in respect of predicate offence, the proceedings really would not survive.

In view of the aforesaid, the appeals filed by the Adjudicating Authority (PMLA) do not survive and are accordingly disposed of.

The trial Court record be sent back to the trial Court.

(ASHA SUNDRIYAL)
ASTT. REGISTRAR-cum-PS

(POONAM VAID)
COURT MASTER (NSH)

[Signed order in Criminal Appeal Nos.319-392 is placed on the file]



A1-No 14938
Urgent Fee :- ~~Rs 5/-~~
Certification Fee : Rs10/-
No. of Folio 3 Rs 3
Total Cost Rs 13
(a) application filed on 7-12-22
(b) the date given to receive copy :~~7~~ 12-22
(c) date on which copy is made ready 7-12-22
(d) the date on which the copy is received by the applicant or sent to the applicant :-
Krishan Kr
7-12-22
Branch Officer
Supreme Court of India

ANNEXURE-7



தமிழ்நாடு तमिलनाडु TAMILNADU
VGN
28 AUG 2024

EF 016490

R. LAKSHMANAN
STAMP VENDOR
L C No 6/772/B3/96
No 261 E V R ROAD
AMINJIKARAI CHENNAI 29

FORM 'B'

[See rule 3(4)]

DECLARATION, SUPPORTED BY AN AFFIDAVIT, WHICH SHALL BE SIGNED BY THE PROMOTER OR ANY PERSON AUTHORIZED BY THE PROMOTER

AFFIDAVIT CUM DECLARATION

Affidavit cum Declaration of M/s. VGN Projects Estates Pvt. Ltd., promoter of the proposed project VGN FAIRMONT, consisting of Blocks A to F with 1559 dwelling units with 2 combined basements + stilt floor + 14 floors with club house, MLCP and a swimming floor block in T.S.No.22/5, 23/4, 24/4, 25/2, 29/2, 30/1, 30/4, 31/2, 32/2, 33/2 & 34/2, Block No.2, Alandur Village, Thiru. Vi.Ka Industrial Estate, Guindy, Chennai.– 600 032. Now we are applying for Blocks A, E & F consisting of 756 dwelling units in VGN Fairmont project.

I, M/s. VGN Projects Estates Pvt. Ltd., promoter of the proposed project, do hereby solemnly declare, undertake and state as under:

For VGN PROJECTS ESTATES PVT. LTD.

Authorised Signatory

1. That I / promoter have / has a legal title to the land on which the development of the project is proposed

2. That the said land is free from all encumbrances.

3. That the time period within which the project shall be completed by me/promoter is 63 MONTHS. The date of completion is (25.01.2030)

4. That seventy per cent of the amounts realised by me/promoter for the real estate project from the allottees, from time to time, shall be deposited in a separate account to be maintained in a scheduled bank to cover the cost of construction and the land cost and shall be used only for that purpose, as far as building is concerned. For layout projects, it will be cost of development and the land cost.

5. That the amounts from the separate account, to cover the cost of the project, shall be withdrawn only after due certification by an engineer, architect and a chartered accountant in practice that the withdrawal is in proportion to the percentage of completion of the project, as far as building is concerned. For layout projects, the withdrawal can be done after obtaining a certificate from the Architect / Licensed Surveyor stating that the project has been developed and completed in all respects as per the layout approved by the competent authority.

6. That I / promoter shall get the accounts audited within six months after the end of every financial year by a chartered accountant in practice, and shall produce a statement of accounts duly certified and signed by such chartered accountant to the Authority and it shall be verified during the audit that the amounts collected for a particular project have been utilised for the project and the withdrawals have been made in compliance with the proportion to the percentage of completion of the project.

7. That I / promoter shall take all the pending approvals on time, from the competent authorities

8. That I / promoter have / has furnished such other documents as have been prescribed by the rules and regulations made under the Act.

9. That I / promoter shall not discriminate against any allottee at the time of allotment of any apartment, plot or building, as the case may be, on any grounds.

For VGN PROJECTS ESTATES PVT. LTD.

Authorised Signatory

Deponent

Verification

The contents of my above Affidavit cum Declaration are true and correct andnothing material has been concealed by me therefrom.

For VGN PROJECTS ESTATES PVT. LTD.

Verified by me at Chennai on this 16th day of October '2024.

VGN FAIRMONT - UDS CALCULATION DETAILS			
1	PLOT AREA (AS PER DOCUMENT)**(A)**	42329.77	SQ.M
	GIFTED OSR AREA **(B1)**	4226.73	SQ.M
	GIFTED ROAD AREA **(B2)**	972.32	SQ.M
	GIFTED TO TNEB AREA **(B3)**	972.23	SQ.M
	ACTUAL PLOT AREA CONSIDERATION FOR UDS [C] = A-(B1+B2+B3)	**36158.49**	**SQ.M**
	VGN FAIRMONT - UDS BREAKUP DETAILS - BLOCKWISE		
1	A Block	5316.98	SQ.M
2	B Block	12402.45	SQ.M
3	C Block	4096.25	SQ.M
4	C LIG (D) Block	3703.64	SQ.M
5	E Block	5322.19	SQ.M
6	F Block	5316.98	SQ.M
	Total UDS	**36158.49**	**SQ.M**

For VGN PROJECTS ESTATES PVT LTD

Authorised Signatory

Checked & found ok

15/10/2024

Our services go beyond

Buying & Selling Services

Property Buying Assistance, Property Selling Support, Market Price Analysis, Owner Outreach and Negotiation.

Legal & Documentation Services

Certified EC, Patta, legal opinions, property verification, due diligence, litigation solutions, and legal heir certificates.

Property Development & Approvals

Building plan approvals, construction, layout and sub-division approvals, zone conversion, and occupancy certification.

NRI & Investment Services

Escrow Services, Rentals, Litigation Solutions, Property Valuation and Property Management

Compliance & Special Services

Demolition, Vaasthu checks, regularization of unauthorized buildings, and office space solutions.

Smarter Tools, Stronger Decisions

Property Valuation & Cost Estimation

Guideline Value, Apartment Composite Value, Stamp Duty & Registration Fees Calculator, Building Value Calculator, Capital Gains Calculator, Area Unit Converter, Length Unit Converter

Ownership, Compliance & Legal Verification

Encumbrance Certificate (EC) Search, Find Your SRO, Temple Property Check, WAQF Property Check, View Patta/Chitta, View FMB, Patta Analyzer, EC Analyzer

Zoning & Land Use Analysis

Land Use Zone Finder, CRZ Zone Check, Aquifer Zone Check, CBA Check, EWS Check, Road Width Check, Proposed Road Widening Check, FSI Calculator

Property Documentation & Workflow Tools

Forms & Templates, Document Generator, Document Translation, Dictionary

Vastu & Property Management Tools

Home Vastu Shastra, Plot Vastu Shastra, Property Management

Verified RealEstate™

Verified RealEstate™

We're honored to be part of your
real estate journey

3/350/2 Mettukuppam,
OMR Thoraipakkam,
Chennai, India

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+91 9996 12 9996
www.verified.realestate