



# Geo Technologies

Expert Geotechnical Consultants for Soil/Rock/Water Investigations

**ISO 9001:2008 CERTIFIED**

# 5-83/B, St. No. 8, Habsiguda, Hyderabad – 500 027

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**Dr. N. VENKAT RAO**, M.Sc., (Tech), Ph.D., FAEG, MIGS  
Former Professor & Head of Geophysics, Osmania University

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GT/00697/Modi Builders

Date: 25-04-2013

## SOIL TESTING REPORT

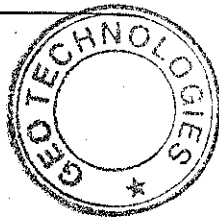
**Name of Work:** Construction of (G+8) Apartment building at  
Paramount Avenue, Mallapur Nagaram

**Client:** M/s Modi Builders Paramount Avenue.

1. One (1) Soil sample collected from 4.25 m depth in the site by the client was brought to the Lab for testing. Based on physical examination, the soil is identified as silty clay.
2. No water table is reported in the pit.
3. The sample was tested for density and shear parameters ( $c$  &  $\Phi$ ) in accordance with IS: 2720. Appendix gives the results of lab testing and calculations for SBC as per IS: 6403-1981.
4. Based on Lab testing, SBC is recommended as 10 t/sq m for foundations at 4.25 m depth, with sand bed.
5. This is based on the assumption of footing width of 2 m. The actual size will be based on the loads from the super structure.
6. Foundation pits should be backfilled well-compacted gravelly morum. The soft soil from the site is not suitable for this purpose.

For GEO TECHNOLOGIES

DR. N. VENKAT RAO



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Principal Geotechnical Consultant

**Dr. D. BABU RAO**, M.E., Ph.D. (USA), MIGS,

Former Professor & Head of Civil Engineering, Osmania University, Hyderabad

MCH Panelist No. 2490/TP/2000-2

## APPENDIX: CALCULATION OF BEARING CAPACITY

### Soil Properties:

Property	Sample
Unit wt. $r$ , KN/cu m	17.2
Cohesion $c$ , KN/sq m	56
Angle of internal friction $\Phi$ , deg.	0

### Calculation of SBC:

#### Foundations resting in clay:

Assumed width of foundation... 2 m

Assumed depth of foundation... 4.25 m below ground level

Unit wt.  $r = 17.8$  KN / cu m;

Cohesion = 56 KN / sq m ;  $\Phi = 0$  deg.

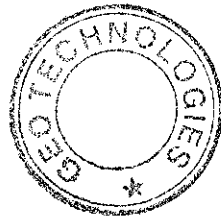
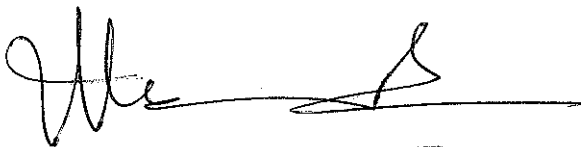
Using IS Code 6403 – 1981 formula:

$$N_c' = 5.14 \quad N_q' = 1.00 \quad N_r' = 0.00$$

$$\text{Net, Ult B.C.} = 1.3 c' N_c' + r' D (N_q' - 1) + 0.4 r' B N_r' = 374 \text{ KN per sq m}$$

With a F.S. of 3.0, SBC = 124 KN per sq m

***Recommended Safe Bearing Capacity for foundations resting in silty clay at 4.25 m depth is 10 tonnes per sq m, with sand bed.***





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Service Tax Reg. No. (TIC/268/26-S.TAX)  
Service Tax Code : AAXPN3912DST001

Taxable Services: Technical Test, Analysis,  
Inspection & Certification

TAN. No. HYDV05639E , PAN No. AAXPN3912D

## Service Invoice

To  
M/s Paramount Avenue  
Nagaram,  
Hyderabad.

Invoice Number: GT/0024/13-14.

Invoice Date: 26 April, 2013

Ref: PO/WO Number: Nil.

Ref: PO/WO Date: Nil.

Report No: GT/0697/2013-14.

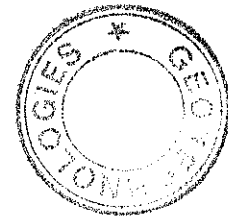
Name of the Work : Invoice for Soil Investigation for Construction of (G+8) Apartment Building at Paramount Avenue, Nagaram.

Sl.No.	Description/ classification of service	UOM	Qty	Rate	Amount (in Rs.)
1	Lab Testing of Soil Sample & preparation of report for SBC	LS	1	3000	3000
2	Service Tax @ 12.36%				371
3	Gross Receivable				3371
4	Advance Received				0
5	Net Amout Payable				3371

Amount in Words : Rupees Three Thousand Three Hundred and Seventy One Only.

For Geo Technologies

(Dr. N. Venkat Rao)



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in Hyderabad