



Geo Technologies

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Expert Geo Consultants for Soil / Rock / Ground Water Investigations

5-83/B, V.V. Nagar, St. No. 8, Habsiguda, Hyderabad-500 007

T/F: 040-42217757; M: 09347275255; Email: geotech999@gmail.com

Dr. N. VENKAT RAO, M.Sc., (Tech), Ph.D., FAEG, MIGS

Former Professor & Head of Geophysics, Osmania University

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REPORT OF SOIL INVESTIGATION FOR THE PROPOSED RESIDENTIAL APARTMENT AT KOLTHUR VILLAGE, MUDUCHINTALPALLY Mandal, MEDCHAL MALKAJGIRI DISTRICT, TELANGANA

1. INTRODUCTION

M/s. Modi Realty Genome Valley LLP rep. by its Managing partner Sri Soham Modi S/o. Late Sri Satish Modi are proposing to construct Multistoried Residential Apartment in Sy.Nos.505/P, 506/P, 507, 508/P, 509, 510, 511 & 532/P, Kolthur Village, Muduchintalpally Mandal (formerly under Shamirpet Mandal), Medchal Malkajgiri District, Telangana.

The proposed Buildings consists of R.C.C. Structure with C+G+7 upper floors. Total area of the land is 25,707.88 Sq.mtrs.

The aim of this Report is to evaluate the nature and depth of soils at the site, and to determine the safe bearing capacity of the foundations accordingly.

2. FIELD INVESTIGATIONS

One (1) soil sample collected from 4.0 m depth was sent to the Lab for testing. It consists of Gravel. No water was reported in the pit.

3. LABORATORY TESTING

The soil sample was tested in the Geo Technologies Soil Testing Laboratory at Hyderabad. The following tests were conducted:

Bulk Density

Shear test (For determining Cohesion and Angle of Internal Friction)

All the tests were conducted in accordance with IS: 2720 (Code of Practice for Testing of Soils).

4. RESULTS

Table 1 gives the results of physical and engineering tests on soil sample. Open foundations are recommended. Appendix gives the calculations for SBC.

Principal Geotechnical Consultant

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

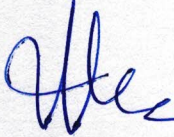
Former Professor & Head of Civil Engineering, Osmania University, Hyderabad

MCH Panelist No. 2490/TP/2000-2

5. RECOMMENDATIONS

Based on Lab testing of one sample, the following Recommendations are given:

- a) The soil sample consists of Gravel.
- b) No Water correction is applied.
- c) SBC is tentatively recommended as 35 t / sq m for foundations resting at 2.0 m depth below CFL. This is based on the assumption of footings of width 3 m. The actual size would be based on the loads from the super structure.
- d) This report is based on testing of a single sample from 4.0 m depth from one trial pit only and is not adequate for 25,707.88 Sq.mtrs. site. Detailed investigation by core drilling as per IS 1892 is required for finalization of SBC.


(Dr. N. VENKAT RAO)

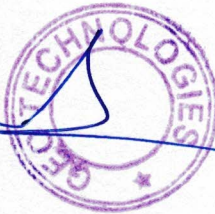


TABLE-1: SUMMARY OF SOIL PROPERTIES

Property	Location
	TP 1
Density, KN / cu m	18.0
Cohesion, KN / sq m	10
Angle of internal friction, deg	33

APPENDIX: CALCULATION OF BEARING CAPACITY

Assumed width of foundation... 3.0 m

Assumed depth of foundation... 2.0 m below 2nd basement floor level.

Unit wt. $r = 18.0$ KN / cu m;

Cohesion $c = 10$ KN / sq m; (Neglected)

Angle of internal friction = 33 deg.

Using IS Code 6403 – 1981 formula:

$$N_c' = 29.37 \quad N_q' = 18.39 \quad N_r' = 23.55$$

$$\begin{aligned} \text{Net, Ult B.C.} &= 1.3 c N_c' + r D (N_q' - 1) + 0.4 r B N_r' \\ &= 1134.72 \text{ KN per sq m} \end{aligned}$$

With a F.S. of 3.0, SBC = 378 KN per sq m

Recommended Safe Bearing Capacity is 35 tonnes per sq m.

SBC will be finalized after detailed investigations.



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