

RECONNAISSANCE GEOLOGICAL REPORT OF PROPOSED SITE OF SHRI SUMAN PRASAD S/o SHRI KULANAND FOR THE CONSTRUCTION OF OWNER DRIVEN CONSTRUCTION FOR HOUSING (ODCH) VILLAGE TIYAN, TEHSIL- BARKOT- DISTRICT UTTARKASHI, UTTARAKHAND
KHASARA No. – 1603 & AREA – 0.010 ha.

Date of Inspection: 26/12/13

In a 'World Bank' funded programme, Government of Uttarakhand has provided teams of Consultant Geologists and Consultant Associate Geologists to Director, Geology and Mining Unit, Uttarakhand for geological studies in proposed sites for Owner Driven Construction For Housing (ODCH) in disaster affected districts of Uttarakhand.

Director, Geology and Mining Unit, Directorate of Industries, Uttarakhand has issued an Office Order No.1612 Aa. Pra./Bhu.Ni./Bhu.Khani.E./2013-14 dated 10thDecember 2013 regarding geological studies in disaster affected five districts of Uttarakhand, Uttarkashi is one of them. Thus, undersigned have taken geological observation during traverses and collected field geological data under the management of cosignatory departmental 'Assistant Geologist'.

In the above mentioned questioned area, the reconnaissance geological investigation was carried out in the presence and co-operation of Shri Bhagat Singh Rawat, Revenue Sub-Inspector, Tiyan. It is 44Km approx from Tehsil Headquarter Barkot, Uttarkashi, Uttarakhand and the site is 25Km approx from NH-123 (Delhi-Yamunotri National Highway) on right side of the Dhari-Bijlari motar marg. It falls on coordinate – N 30^o 44.626 E 78^o 07.997 El. 5925feet. The proposed site is near Bijlari village, the area is densely populated and at about 250-300m on the uphill side of the proposed site Devrana temple is present.

The proposed site is on compact colluvial deposit and man-made cultivated terraces are present. The uphill slope at the proposed site is 32^o-34^o and the downhill slope is 13^o-15^o approx sloping in N 145^o direction. At and around the proposed site location moderate vegetation is present.

At the proposed site location no in-situ rocks are exposed but, boulders are embedded in the soil. Thin and consolidated soil cover is present with small rock fragments of phyllite and limestone of size range 0.5cm-6cm approx in the soil matrix. The rate of infiltration is low making the soil water saturation low. No sign of water seepage is present. A temporary drain is present along the road and the proposed site. The trees at the uphill side and electric pole near the proposed site are standing straight which shows the site is stable. At the uphill side village Bijlari is present at about 250-300m distance at the toe of the Devrana hill.



Close view of the proposed site




Uphill side view from the proposed site


RECOMMENDATIONS:

1. Inclined retaining wall at the south-eastern backside with provisions of weep holes and sufficient gap of about 2-3feet in between the backside retaining wall and the proposed construction should be constructed. And also, proper drainage system between the retaining wall and the wall of house should be developed.
2. The surface drainage should be properly planned through lined drain/pipe, so that the both rain water from uphill side as well as waste water from the existing houses to be release safe place at down-hill along a channel.
3. The temporary drain which is already present between the proposed site and the road should be made cemented so as to avoid water seepage and water logging.
4. The foundation depth of the houses must be as per the compactness of the overburden material in the proposed site.
5. The premises and the foundation must be made 'pukka' in order to avoid excessive seepage of the surface water.
6. Massive plantation of trees, bushes and grasses, which can hold the soil mass and retain the debris with dense and long rooted, wide leafed flora must be done at the uphill side to protect the soil erosion and minimize the surface erosion of sub-surface rock.
7. Framed structure with light roof must be constructed as the area falls in the earthquake zone IV, so it is essential that the house must be constructed with latest earthquake resistive techniques.

CONCLUSION:


Prima-facie, presently the proposed site of Shri. Suman Prasad S/o Shri. Kulanand is geologically feasible for the proposed construction, only if, the above mentioned recommendations will be followed strictly, otherwise, in its contravention; geologically suitability will be deemed annulled.


(Shashank Sharma)
Consultant Associate Geologist


(Vijai Kr. Sen)
Consultant Geologist

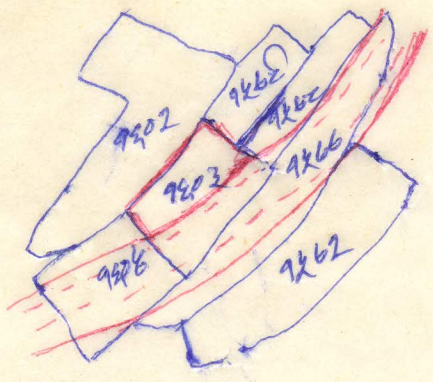
Date:

Place: Camp Uttarkashi


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नाम - ज्ञान - विद्या ^{श्री लक्ष्मी देवी} ^{पति - सुभाष चंद्र}, वसति - बसंत
 प्रसन्न - श्री सुभाष चंद्र पुत्र सुभाष चंद्र - विद्या

पैमाना 64 = 1 मील



संकेत -



प्रसन्न मूल्य



धारी - राजलाडा मार्ग

सुभाष चंद्र

26/12/13

नाम - ज्ञान - विद्या ^{श्री लक्ष्मी देवी} ^{पति - सुभाष चंद्र}, वसति - बसंत
 प्रसन्न - श्री सुभाष चंद्र पुत्र सुभाष चंद्र - विद्या

संकेत नम्बर	खंदा नम्बर	खंदा नम्बर	नाम - मूल्य	नाम - राजलाडा	दिनांक
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सुभाष चंद्र
 26/12/13