

**RECONNAISSANCE GEOLOGICAL REPORT OF PROPOSED SITE OF SMT
JAIKRISHNI DEVI W/o SHRI JAIENDRA SINGH FOR THE CONSTRUCTION OF
OWNER DRIVEN CONSTRUCTION FOR HOUSING (ODCH)
VILLAGE NAITWAD, TEHSIL- MORI- DISTRICT UTTARKASHI,
UTTARAKHAND
KHASARA No. – 96 & AREA – 0.004 ha.**

Date of Inspection: 19/01/14

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 Jaipal Singh, Home guard. It is 14Km approx from Tehsil Headquarter Mori, Uttarkashi, Uttarakhand and the site is at 200m from Naitwad-Sewa motar marg through Naitwad village bridle path. It falls on coordinate – N 31^o 04'08.8" E 78^o 06'01.8" El. 1290m. The site is in village Naitwad near Pokhu temple, which is densely populated, on the left bank of Rupin river which is flowing SE to NW in direction at vertical height 15-20m approx and horizontal distance of 200m approx. Some new houses are developed in the last 5 years in northern uphill side at about 20-25m approx distance.

The proposed site is on mix colluvial overburden material varying in thickness range from 1-1.5m approx at places, man-made cultivated terraces are present. The uphill slope is 15^o-20^o upto 15m approx then the gradient changes to 30^o-32^o and the downhill slope is 20^o-25^o sloping in south direction. Around the proposed site location dense pine vegetation is present at about 80-100m approx in uphill side.



Close view of the proposed site



Uphill side view from the proposed site

The proposed site is on colluvial overburden material thus no insitu rock is found but a few boulders varying in size range from 1.5m to 5m approx are found embedded in the

blackish brown clayey soil, in uphill side at about 55-60m approx distance, with fragments of quartz and gneiss of 1cm-5cm approx size. The soil is consolidated; the rate of infiltration is medium making the soil water saturation medium. At the proposed site location the water seepage is low. The electric poles and trees at the uphill slopes are standing straight. The site is in between Naitwad village thus is surrounded by moderate inhabitation. A retaining wall is already present in the north-western uphill side boundary of the site with good drainage developed in the area. A drain line is passing along the southern boundary of the site which is well developed.


RECOMMENDATIONS:


1. The retaining wall in the NW boundary of the site need to be re-developed with proper inclination, with a sufficient gap and drainage between the wall of the house the retaining wall.
2. The surface drainage should be properly planned through lined drain/pipe, so both rain water as well as waste water from the existing houses to be release safe place in west direction along a channel.
3. The foundation depth of the houses must be as per the compactness of the overburden material at the proposed site.
4. Framed structure with deep column and 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.
5. The soak pits and toilet foundations must be quiet away in west side from the house so that the foundations are not directly affected from subsidence due to excessive seepage.
6. The premises of house must be made 'pukka' in order to avoid excessive seepage of the surface water.

CONCLUSION:

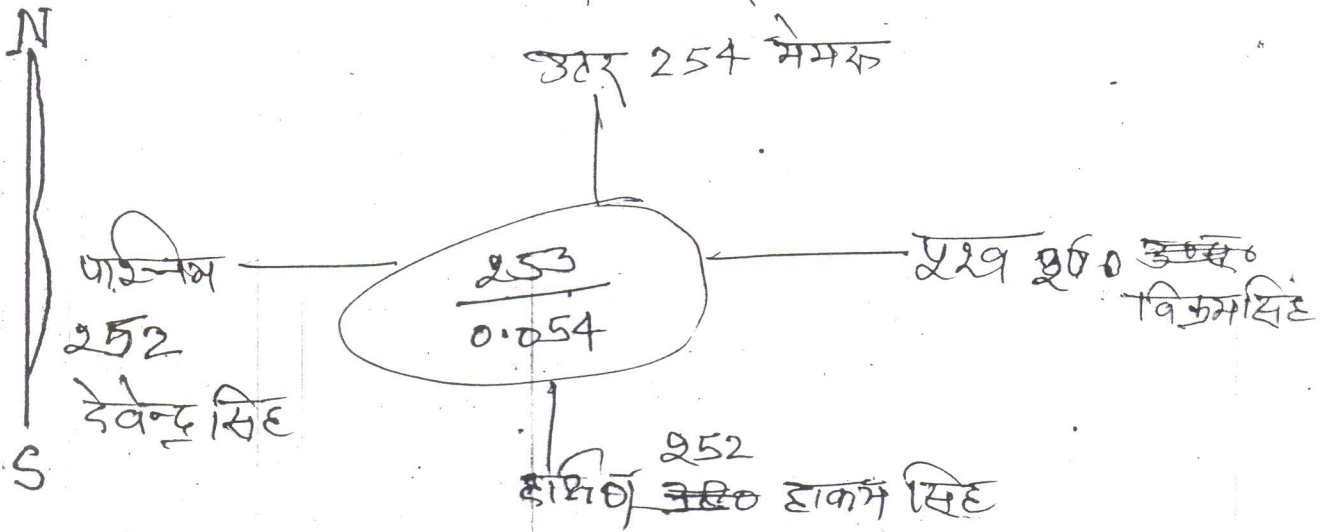
Prima-facie, presently, the proposed site of Smt. Jaikrishni Devi W/o Shri Jaiendra Singh is geologically feasible for the proposed construction, only if, the above mentioned recommendations will be followed strictly, otherwise, in their contravention; geologically suitability will be deemed annulled.


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Consultant Geologist

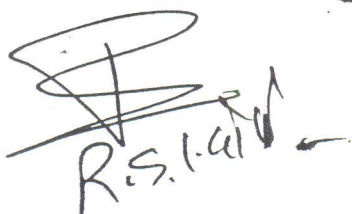

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तक्षीम मोरी के ग्राम नरवाड़ में दैवीय आपदा के कारण पूर्ण रूप से क्षतिग्रस्त भवन के कारण अपने निजी भूमि पर बनाये जाने वाले प्रभावित व्यापक के जयपृथ्वीपल्ली के भवन का नजरी नक्शा व खसरा 253 खचा 0.054



खसरा नं. 253 की चौहद्दी निम्न प्रकार है -

- 1- पूरव में खसरा नं. 260 विक्रम सिंह
- 2- पश्चिम में खसरा नं. 252 देवेन्द्र सिंह,
- 3- उत्तर में खसरा नं. 254 मेमरु
- 4- दक्षिण में खसरा नं. 252 हाकम सिंह के साथ खेत है।


R.S. 1.41

खसरा

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| ख. नं. | कुल खचा | प्रभावित खचा |
| 253 | 0.054 | 0.020 |