

**RECONNAISSANCE GEOLOGICAL REPORT OF PROPOSED SITE OF
SHRI PRITAM SINGH S/o SHRI SURST SINGH FOR THE CONSTRUCTION OF
OWNER DRIVEN CONSTRUCTION FOR HOUSING (ODCH)
VILLAGE MASRI, TEHSIL- MORI- DISTRICT UTTARKASHI, UTTARAKHAND
KHASARA No. – 1530 & AREA – 0.155 ha.**

Date of Inspection: 11/01/2014

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 Prem Lal, Home guard- Mori, Uttarkashi. It is 33Km approx from Tehsil Headquarter Mori, Uttarkashi, Uttarakhand and the site is 2km approx on Netwar-Masri motor marg through bridle path. It falls on coordinate – N 31° 09'52.8" E 78° 07'27.4" El. 2109m. The site is in above village Masri, which is least populated.

The proposed site is on colluvial overburden material varying in thickness range from >5m approx at places, man-made cultivated terraces are present. The uphill slope is 20°-25° and the downhill slope is 25°-30° sloping in north direction. Around the proposed site location dense mix vegetation of Banjh, Chulu, etc., is present at about 30m-40m approx in uphill side. A perennial nala flow is passing from N side of land at about 100m-150m approx flowing in NW direction.



Close view of 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 0.2m to 0.5m approx are found embedded in the blackish brown soil with fragments of quartz and gneiss of 2cm-5cm approx size. The soil is consolidated; the rate of infiltration is low making the soil water saturation low. At the

proposed site location the water seepage is low. The trees at the uphill slopes are standing straight.

RECOMMENDATIONS:

1. Inclined retaining wall of 3m approx height and 5m approx length at the S backside boundary and also in the N toe boundary of the site of 5-6m approx length, 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 both rain water as well as waste water from the existing houses to be release safe place in W 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 N 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:

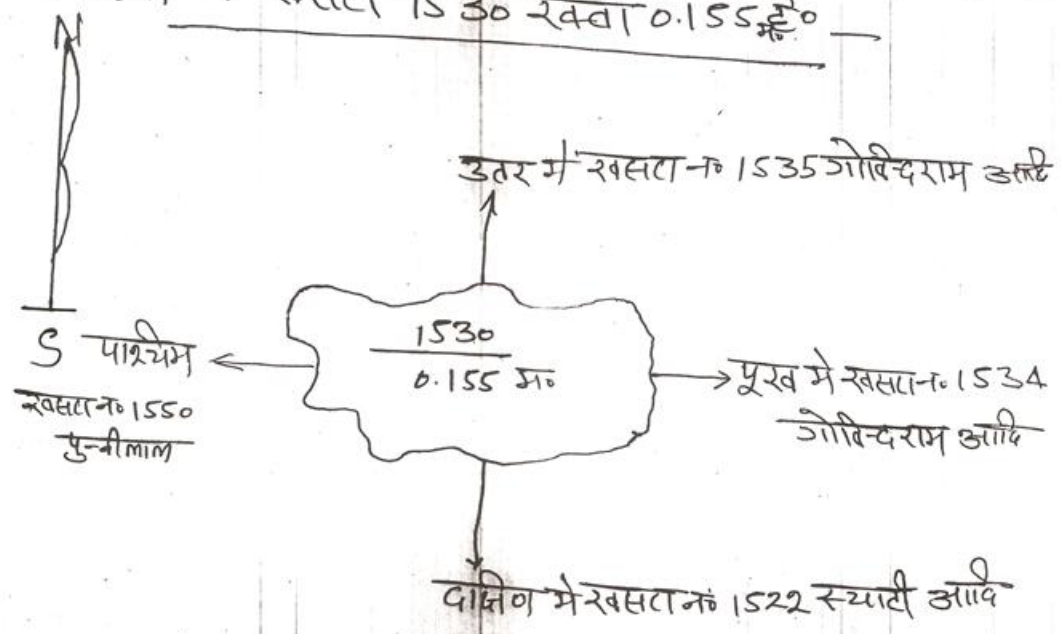
Prima-facie, presently, the proposed site of Shri Pritam Singh S/o Shri Surat Singh is geologically feasible for the proposed construction, only if, the above mentioned recommendations will be followed strictly, otherwise, in their contravention; geologically suitability will be deemed annulled.

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तहसील भोरी के अन्तर्गत ग्राम भसरी में वैदीय-
 आपदा के कारण पूर्ण रूप से क्षतिग्रस्त भवन के कारण
 अपने निजी भूमि पर बनाये जाने वाले प्रभावित
 ग्राम पितामह ७० सुखसिंह के भवन का नजरी
 नक्शा व खसरा 1530 खता 0.155 है।



- नोट - खसरा नं० 1530 की चौकड़ी निम्न प्रकार है।
- (1) पूरुब में खसरा नं० 1534 गोविंदराम आदि
 - (2) पश्चिम में खसरा नं० 1550 पुनीलाल
 - (3) उत्तर में खसरा नं० 1535 गोविंदराम आदि
 - (4) दक्षिण में खसरा नं० 1522 स्याही आदि के नाम से है।

खसरा नं० 1530
 0.155 म.क.

| खसरा नं० | खसरा | प्रमाणित (कवा) |
|----------|-------|----------------|
| 1530 म. | 0.155 | 0.020 |