

RECONNAISSANCE GEOLOGICAL REPORT OF SMT.MALA DEVI W/o SHRI SURAJ SINGH FOR THE PROPOSED CONSTRUCTION OF OWNER DRIVEN CONSTRUCTION HOUSING (ODCH) VILLAGE-NEWSARI, TEHSIL- DUNDA, DIST.- UTTARKASHI KHASRA No.4615&AREA0.064 ha.

Date of Inspection: 23-12-2013

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. Bhagwan Singh Gunsola, Revenue Sub-Inspector, Newsari. The proposed construction site is located 66km away from district headquarter Uttarkashi, nearby Sirkalkhalmotor road, and of falls on alluvial deposits. At 800m horizontal distance in the SE direction Chaulad Gad is present. The area is low populated and proposed site is low vegetated. That proposed site falls on the coordinates N 30°32'28.8" E 78°30'50.5" and El. 1826m from msl.

The proposed site situated on gentle sloppy hill, overburden thickness about 1-1.5m in manmade cultivated land. In overburden fragments of quartzite and phyllite are varying 2-5cm in size with fine grained brownish clayey soil matrix. General slope of the proposed site is 20°-25°, about 30m hill side from proposed site slope trending 40°-45° eastward and valley side slope is trending 30°-35° towards SE direction.

Above the proposed site newly cutting Newsari-Bait motor road, on the road cutting moderately to highly weathered phyllite rock is exposed. The site is gentle sloppy hill, no seepage and no surface disturbance seen around the proposed site.



Close view of the proposed site


RECOMMENDATIONS:


Based on above surface geological observations, the proposed area seems geologically suitable for the proposed building construction. The following remedial measures are recommended for safety:

1. A inclined retaining wall at the uphill and downhill side; with provisions of weep holes and sufficient gap of about 0.5-1.0m 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 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 foundation depth of the houses must be as per the compactness of the overburden material in the proposed site.
4. 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 to protect the soil erosion and minimize the surface erosion of sub-surface rock.
5. The soak pits and toilet foundations must be quiet away from the house so that the foundations are not directly affected from subsidence due to excessive seepage.
6. 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 Smt. Malla Devi w/o Shri Suraj Singh is geologically feasible for the proposed construction, only if, the above mentioned recommendations will be followed strictly; otherwise, in their contravention the geological suitability will be deemed void.


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Geologist

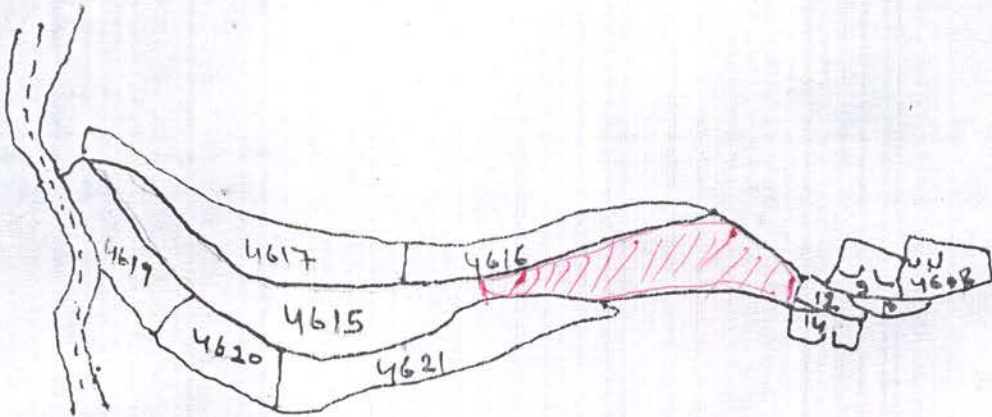

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नकाशा नकाशा योजना न्यूनाती (सुगाव) पर्यंत जाण्या वरिष्ठ (505) जिल्हा उत्तर

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कमल खं सरा

पट्टा गाजगा तह ३०५१ जिना उतर काशी

सरा नम्बर	खंवा	खंवा सं	खंवातकर-सा नाम	खंवा
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