

परियोजना का नाम:- राज्य योजना में जनपद बागेश्वर में मनियाछीना- भाटगढ़ मोटर मार्ग का निर्माण।

भू-वैज्ञानिक की आख्या

- संलग्न^२-

नोट- प्रयोक्ता एजेन्सी द्वारा भू-वैज्ञानिक की आख्या प्राप्त कर प्रस्ताव के साथ संलग्न की जायेगी।

कार्यालय प्रमुख अभियन्ता एवं विभागाध्यक्ष
उत्तराखण्ड लोक निर्माण विभाग,
देहरादून।

भू - गर्भीय निरीक्षण आख्या एस0जी0- 208/सड़क/पुल समरेखण/कुमाऊं/2014

**Geological Assessment of the 4 km long
alignment corridor proposed for Maniyacheena
to Pagna via Bhatgad motor road,
Distt.Bageshwar.**

18-फरवरी-2015

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Distt. Bageshwar.**

Vijay Dangwal

18-02-2015

1- Introduction:- The Provincial Division Public Works Department Bageshwar has been entrusted for the construction of 4.00 km long motor road namely Maniyacheena to Pagna via Bhatgad motor road vide the Chief Minister's notification No. 446/2014 in Distt Bageshwar. On the request of Er. Mahendra Kumar, Executive Engineer, I carried out the geological assessment of the proposed alignment corridor on 12.02.2015 in presence of Er. A.S Bisht, Asstt. Engineer and Er. S.S. Karki, Jr. Engineer, P.D, PWD, Bageshwar.

2- Location:- The proposed alignment of the road originates from km 4.00 of Danuicheena to Lobe motor road located in Distt. Bageshwar.

3- Geological Assessment:- Geologically the 4 km long alignment corridor proposed for Maniyacheena to Pagna via Bhatgad motor road lies in the Inner Lands of Kumaon Lesser Himalaya occupied by the dolomites belonging to Tejam Group. The terrain containing this alignment is characterized by the mild topography represented by flat plateau, very low inclined hill slopes which becomes moderate to steep towards the end chainages of this road. The dolomites exposed in this area are thinly foliated and partially weathered and oxidized in nature. The rock masses have undergone intense deformation therefore, at places these are sheared, shattered, tectonized and deformed in nature. Most of the alignment passes across the slopes containing cultivated fields which are comprised of the residual soils. The ground and the slopes through which it passes is stable and free from any ground signatures related to the mass wasting. The overburden material deposited on and across the alignment is comprised of the rock fragments of all sizes embedded in the silty-clay matrix. This slope forming material is naturally dense, hard, compacted and stiff in nature. According to an estimation made at the site the "Undrained Shear Strength" of the soils present in this overburden material has been assessed ranging between 400-500 K Pa. The dolomites exposed along the alignment corridor exhibits moderate values of physical competency and these are intensely dissected by the rock defects. As many as four prominent joint sets have been recorded traversing these rock masses. According to the estimation made at the site the "Uniaxial Compressive Strength" of these rock masses was found ranging between 30 M Pa to 50 M Pa.

The slope forming soils across which the alignment passes do not contain any soft/dispersive soils.

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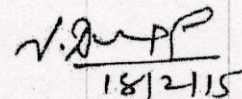
By and large the alignment slopes are stable and presently free from any mass wasting activities.

On the basis of the geological/geotechnical studies carried at the site and the facts mentioned above the following suggestions are being made for the construction of the proposed road failing to these this report will be automatically treated as cancelled.

4- Recommendations:-

1. Form the road by full excavation of the hill slopes.
2. The entire road must be strengthen by the construction of suitable designed retaining/breast walls.
3. The road must have adequate arrangements of long and cross drains and the drained water must be disposed on stable ground.
4. Do not dispose the excavated waste on the lower slopes.
5. Seal the entire surface of the road bench to check the water infiltration into the subsurface material.
6. All the construction activities should be carried out as per the norms and Standard laid by the MORTH/ BIS codes for the Construction similar Structures.


5-Conclusion:- On the basis of the geological/geotechnical studies carried at the site and with the above recommendations, the alignment was found geologically suitable for construction of 4.00 km long motor road namely Maniyacheena to Pagna via Bhatgad motor road, in Distt Bageshwar.


18/2/15

(Vijay Dangwal)

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सहायक अभियन्ता
पानीपत खण्ड सो. रो. वि.
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