

MUCK MANAGEMENT PLAN

1. INTRODUCTION

Large quantity of muck is expected to be generated as a result of construction activities of roads, in hilly and mountainous terrain etc. due to proposed cutting or excavation work. Muck generated from excavation of any project component is required to be disposed in a planned manner so that it takes a least possible space and is not hazardous to the environment. The muck disposal sites cause increased sedimentation in the rivers (though insignificant compared to natural sedimentation) and totally spoils the visual aesthetics of the area. It is of prime importance that these sites will have to be rehabilitated as soon as the disposal sites are full.

2 MUCK GENERATIONS

Based on the geological nature of the rocks and engineering properties of the soil, a part of the muck generated can be used as construction material. The balance needs to be suitably disposed. Normally, muck is disposed in low-lying areas or depressions. Trees, if any, are cut before muck disposal, however, shrubs, grass or other types of undergrowth in the muck disposal at sites perish. The muck disposal sites will be suitably stabilized on completion of the muck disposal.

- Muck disposal can lead to impacts on various aspects of environment. Normally, the land is cleared before muck disposal. During clearing operation trees are cut, but undergrowth perishes as a result of muck disposal.
- In many of the sites, muck is stacked without adequate stabilization measures. In such a scenario, the muck moves along with runoff and creates landslide like situations. Many a times, boulders/large stone pieces enter the river/water body, affecting the benthic fauna, fisheries and other components of aquatic biota.
- The increased vehicular movement near muck disposal sites lead to adverse impacts on ambient air quality as well. However, increase in vehicular traffic is not significant to cause major impact on ambient air quality.
- Normally muck disposal is done at low lying areas, which get filled up due to stacking of muck. This can sometimes affect the natural drainage pattern of the area leading to accumulation of water or partial flooding of some area which can provide ideal breeding habitat for mosquitoes.

Thus, it is necessary to develop a proper muck disposal plan for amelioration of above referred impacts.

3 MUCK DISPOSAL SITES:-

The proposed project is Construction of 4-laning of Kotdwar bypass of NH-119 connecting Najibabad-Kotdwar to Kotdwar-Pauri Road in the state of Uttar Pradesh and Uttarakhand under Bharatmala Pariyojana Lot-4/Package-2 is on the plain terrain and no cutting is proposed. ROB and viaducts are proposed in construction of project in which excavation will be done in meager amount of the muck will be generated that to be utilized as



परियोजना निदेशक / Project Director
भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
National Highways Authority of India
प्लॉट नं. ०४/०५, नजीबाबाद, जिला-बिजनौर (यू.पी.)
P.I.I. - Najibabad, Distt.-Bijnor (U.P.)

Santosh Kumar Bajpai
Project Director - Meerut

प्रमुख अधिकारी

filling in retaining walls. The biomass residue generated due to tree felling activity will be utilized by the nearby villager in their households.

In the proposed project no muck generation is expected and undertaking is given that no muck will be disposed off on forest land with Permission of competent authority. Hence no site for muck disposal is proposed for this project.

Earth Work	Item No.	Description	Qty. (cum)
EXCAVATION	1	Excavation in Ordinary Rock by Manual Means. Excavation in ordinary rock using manual means including loading in a truck and carrying of excavated material to embankment site with in all lifts and leads up to 1000 metres	0.00
	2	Excavation in Soil with Dozer with lead up to 100metres. Excavation for roadway in soil by mechanical means including cutting and pushing the earth to site of embankment up to a distance of 100metres (average lead 50 metres), including trimming bottom and side slopes in accordance with requirements of lines, grades and cross sections.	0.00
	3	Excavation for Pile/Pier Foundation	3000
EMBANKMENT FILLING	3	Construction of embankment with approved material obtained from borrow pits with a lifts and leads, transporting to site, spreading, grading to required slope and compacting with vibratory roller 8-10 ton net meet requirement of table 300-2 including cost of compensation for earth taken from private land with lead up to 1 km as per MoRTH specification Clause No. 305.	43380
	4	Construction of sub-grade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2 (incl. lead for 10Km)	64595
	5	Construction of Median and Island with Soil Taken from Roadway Cutting. Construction of Median and Island above road level with approved material deposited at site from roadway cutting and excavation for drain and foundation of other structures, spread, graded and compacted as per clause 407. (incl. lead for 8Km)	540

From the table given above as per data of earth work it is clear that the volume of excavation of land is **3000 cum** and Embankment filling is appx. **108515 cum**. This data shows there is a meager/ less amount of excavation is to be carried out and the excavated soil will be used for embankment filling.

This Table shows no muck will be generated and there is no need to dump anywhere.

[Signature]
Divisional Director
Social Forestry Division
BIJNOR

[Signature]
Santosh Kumar Bajpai
Project Director - Meerut



[Signature]
परियोजना निदेशक /Project Director
भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
National Highways Authority of India
पी०आई०यू० नजीबाबाद, जिला-बिजनौर (यूपी.)
PIU- Najibabad, Distt.-Bijnor (U.P.)