

Muck Disposal Plan

Name of Project:-“ UP-gradation and 4-lanning of Paonta Saheb-Ballupur (Dehradun) Section of NH-72 (Km 104.000 to Km 149.000) in the State of Uttarakhand.”

INTRODUCTION

Muck generation is considered a significant impact on land environment and the excavation shall result in large quantity of excavated material i.e. muck which shall have to be excavated and disposed of 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.

QUANTITY OF MUCK TO BE GENERATED

In the forest portion of the project highway, the hillside cutting is involved in the widening of the road. The cutting material comprises soil, boulders, rock and vegetation. It is observed that the volume of cutting is very small as compared to the volume of earth required in the construction of the embankment. Thus entire earth in cutting will be utilised in embankment construction for the same project, partly in the forest portion and partly outside the forest. The boulders will be used in slope pitching as erosion control, and as bed protection work for culverts and bridges. The vegetation cover generated will be stored and used for reapplication on earthen slopes. Thus the entire quantity of excavated material will be utilised in the construction of the project road and no dumping site is required for muck. The details are as under.

MCUK GENERATION FROM PROJECT COMPONENTS AND UTILIZATION

Sl. No.	Project Component	Muck Generation Quantity (Cum)	Project Component	Muck utilization Quantity (Cum)
1	Road widening / Hill cutting		Road widening and raising	
a	Forest section	284,068		333,105
b	Non-Forest Section	532,410		1509,888
	Total	816,478		1842,883
	Excess Quantity required to Disposed		(-) 1026,515	

The total quantity of generated muck to be disposed of is nil.

DISPOSAL OF MUCK

As detailed above total quantity of muck likely to be generated is 816,478 Cum. The entire quantity will be utilized in the project work itself.

As muck is property of the Forest Department royalty will be paid as per prevailing norms.

Sl. No.	Particulars	Remarks
1	Calculation of muck to be generated. Swell factor to be applied.	Total quantity of generated muck is 816,478 Cum
2	Quantity of muck to be utilized in the project activities	1842,883Cum
3	Balance quantity of muck which requires disposal/management plan.	Nil
4	Carriage of muck from the muck generation site to the dumping site.	As per contract conditions muck will be carried by contractors at their own cost which will be included in the civil cost.
5	Ownership of land and the consent of landowners in case muck disposal is proposed on non-forest land.	Since entire muck generated will be utilised in the road construction on the acquired land, no consent of land owners is required.
6	Carrying capacity of proposed dumping site (Muck disposal site)	No dumping site is required.
7	Development of dumping site construction of retaining walls and other structure as per requirement of the site. The objective is to completely stop rolling down of the muck.	Not applicable, due to the reasons given against item 5 and 6.
8	Rehabilitation of dumping site like levelling, planting of grass, shrubs and tree species.	Not applicable, due to the reasons given against item 5 and 6.

Note: Cost to be incurred on the above activities has to be given component-wise under civil cost. Details of dumping site including length, width, and height of structures to be erected must be mentioned – **The cost is included in civil cost in Bill No. 1, 2, 3, 5, 6, 7 and 8.**

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Bill No.	Description	Item Price (Rupees)		
		Package-1	Package 2	Total
1	Site Clearance	6,924,257	4,425,223	11,349,480
2	Earthworks	88,316,803	52,254,625	940,571,428
3	Sub-base and Base Courses	444,134,887	63,899,347	1,208,034,234
4	Flexible Pavement	303,661,097	99,975,589	903,636,686
4A	Rigid Pavement	29,225,338	-	29,225,338
5	Culverts	157,850,910	61,508,120	319,359,030
6	Bridges and grade separated structures	1,956,024,542	57,811,290	2,913,835,832
7	RE Wall	163,241,636	66,513,824	629,755,460
8	Drainage and protection works	365,950,240	37,908,567	803,858,807

Undertaking by user agency has to be given to the effect that:

1. Muck management plan will be implemented by user agency and in case of implementation of plan, they will be liable to penalty/action at their cost – **Agreed**
2. The proposed dumping site is located away from river/stream/Nala – **No dumping site is required.**

Date: 25.02.2022


Project Director

NHAI, PIU, Vasant Vihar, Dehradun

Place: Dehradun

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