

प्रारूप-49

परियोजना विवरण:- मा0 मुख्यमंत्री घोषणा सं0 70/2017 के अन्तर्गत जनपद टिहरी के विकास खण्ड कीर्तिनगर के ग्राम धारी से बाग्यो तक मोटर मार्ग का निर्माण। (लम्बाई 3.000 कि०मी०)।

मलया निस्तारण योजना मार्गदर्शिका के परिशिष्ट में दिये माडल अनुसार तैयार कर पृष्ठ संख्या ११-७० पर संलग्न है।

अ०स०अभियन्ता  
अ०ख०लो०नि०वि०  
कीर्तिनगर

सहायक अभियन्ता  
अ०ख०लो०नि०वि०  
कीर्तिनगर

अधिशारी अभियन्ता  
अ०ख०लो०नि०वि०  
कीर्तिनगर

# उत्तराखण्ड शासन

## लोक निर्माण विभाग



उत्तराखण्ड सरकार

8वां वृत्त, लोक निर्माण विभाग  
नई टिहरी

अस्थाई खण्ड, लो०नि०वि० श्रीनगर  
मुख्यालय—कीर्तिनगर

### मलवा निस्तारण प्रस्ताव

**Name Of Work:-**

मा० मुख्यमंत्री घोषणा सं० 70/2017 के अन्तर्गत जनपद टिहरी के विकास खण्ड कीर्तिनगर के ग्राम धारी से बाग्यो तक मोटर मार्ग का निर्माण।

अनुमानित लागत

**Rs. 16.21**

लाख

### Analysis of Rate

**Name Of Work:** मा0 मुख्यमंत्री घोषणा सं0 70/2017 के अन्तर्गत जनपद टिहरी के विकास खण्ड कीर्तिनगर के ग्राम धारी से बाग्यो तक मोटर मार्ग का निर्माण।

**Block:** Devprayag

SN	Description	Rate	Unit
1-2.	Excavation in foundation for retaining, breast walls etc, in all types of soils and rocks including all lead, lift and disposal of surplus material as per direction of engineer - in - charge, as per drawing and technical specifications Clause 305.1 of MORD Specification	Cu.m	Rs. 337.40
1-7-1.	Providing and laying of wire crates 3.00x1.50x1.50 in size with GI wire conforming to IS:280&IS:4826 in 150mmx 150mm mesh laid with stone boulders. as per direction of Engineer-in-charge. (As per PWD Uttarakhand specifications) GI wire 10 gauge BWG	Cu.m	Rs. 1,488.90

A.A.E

Assistant Engineer  
Temp. Div. P.W.D.  
Kirtinagar

Executive Engineer  
Temp. Div. P.W.D.  
Kirtinagar





PWD UTTARAKHAND  
SCHEDULE OF RATES

SOR :- MISCELLANEOUS  
For Block 22 Kirtinagar

Year :- FY. 2019-20  
Effective From:-01-May-2019

Sl. No.	Description	Rate	Unit
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**CHAPTER-1 - General Items**

1-1	Earthwork in Hill Road (Hill Side Cutting)		
1-1-1	Excavation in soil in Hilly Area by mechanical means		
1-1-1-A	Excavation in soil in Hilly Area by mechanical means Without using Dozer including cutting and trimming of side slopes and disposing of excavated earth with a lift upto 1.5 m and a lead upto 20 m as per Technical Specification Clause 1603.1	63.80	Cum
1-1-1-B	Extra for Every Additional Lift of 1.5 m or Part thereof	22.20	Cum
1-1-2	Excavation in Hilly Areas in Ordinary Rock by mechanical means not requiring blasting (With out Dozer)		
	Excavation in hilly area in ordinary rock not requiring blasting by mechanical means without using Dozer including cutting and trimming of slopes and disposal of cut material with a lift upto 1.5 m and lead upto 20 m as per Clause 1603.2.	97.60	Cum
1-1-3	Excavation in Hilly Areas in Hard Rock requiring blasting		
1-1-3-A	Excavation in hilly areas in hard rock requiring blasting, by mechanical means without using Dozer, lift upto 1.5 m and disposal of excavated rock upto a lead of 20 m as per Clause 1603.2.	257.60	Cum
1-1-3-B	Extra for Every Additional Lift of 1.5 m or Part thereof	43.70	Cum
1-2	Excavation in foundation for retaining, breast walls etc, in all types of soils and rocks including all lead, lift and disposal of surplus material as per direction of engineer - in - charge, as per drawing and technical specifications Clause 305.1 of MORD Specification	337.40	Cum
1-3	Random Rubble Stone Masonry laid Dry, in breast walls, retaining walls, etc. including supply of all material, labour, T&P and royalties etc. complete as per drawing and technical specifications Clauses 702, 704, 1202 & 1203 of MORD Specification	1,839.40	Cum
1-4	Random Rubble Stone Masonry laid in 1:6 cement and sand mortar, in breast walls, retaining walls, parapets, scuppers, etc. including supply of all material, labour, T&P and royalties etc. complete as per drawing and technical specifications Clauses 702, 704, 1202 & 1203 of MORD Specification	3,293.50	Cum
1-5	Hand Packed stone filling in back of walls including cost of all materials, royalty, T&P etc. complete as per direction of Engineer-in- charge. (As per PWD Uttarakhand specifications)	760.70	Cum
1-6	Construction of coolie walling including supply of all material, labour, T&P etc. required for proper completion of the work as per direction of Engineer-in- charge. (As per PWD Uttarakhand specifications)	1,207.90	Cum





PWD UTTARAKHAND  
SCHEDULE OF RATES

SOR :- MISCELLANEOUS  
For Block 22 Kirtinagar

Year :- FY. 2019-20  
Effective From:-01-May-2019

Sl. No.	Description	Rate	Unit
1-7	Providing and laying of wire crates 3.00x1.50x1.50 in size with GI wire conforming to IS: 280 & IS:4826 in 150mm x 150mm mesh laid with stone boulders, as per direction of Engineer-in- charge. (As per PWD Uttarakhand specifications)		
1-7-1	GI wire 10 gauge BWG	1,488.90	Cum
1-7-2	GI wire 8 gauge BWG	1,670.70	Cum
1-8	Providing and Laying of Mechanically Woven Double Twisted Hexagonal shaped Gabions (Zinc plus PVC coated), of size 3mX1mX1m with two diaphragms at 1m interval, having mesh opening 100mmx120 mm, mesh wire diameter 2.7mm/3.7mm, edge/selvedge wire diameter 3.4/4.4 mm and lacing wire diameter 2.2/3.2 mm. (The work includes filling boulders in the gabions).	7,721.40	No.
1-9	Providing and Laying of Mechanically Woven Double Twisted Hexagonal shaped Gabions of galvanized steel, of size 3mX1mX1m with two diaphragms at 1m interval, having mesh opening 100mmx120 mm, mesh wire diameter 3 mm for gabions, edge/selvedge wire diameter 3.9 mm and lacing wire diameter 2.2 mm. (The work includes filling boulders in the gabions).	7,903.20	No.
1-10	Clearance of land slides (Slip Clearance)		
1-10-1	Clearance of land slides in soil and ordinary rock by a bull-dozer D 80 A-12, 180 HP and disposal of the same on the valley side complete as directed by the Engineer-in-charge.	63.30	Cum
1-10-2	Clearing of land slide in hard rock requiring blasting for 50 per cent of the boulders and disposal of the same on the valley side (Using bull-dozer) complete as directed by the Engineer-in-charge.	105.80	Cum
1-10-3	Slip clearance (by manual means) of loose earth and other small loose materials including disposal complete as directed by the Engineer-in-charge.	201.90	Cum
1-10-4	Slip clearance (by manual means) of earth and boulders including disposal complete as directed by the Engineer-in-charge.	202.70	Cum
1-10-5	Slip clearance (by manual means) of boulders only including disposal complete as directed by the Engineer-in-charge.	216.90	Cum
1-11	Setting Out (Construction of Reference Pillars, Back Pillars and Job Pillars)		
1-11-1	Construction of reference pillars with RR 1:6 stone masonry and Plastered with 1:4 Mortar, (totally under ground) of length 200mm, width 200mm and height 300mm) as per Fig. 1600.1 (b) and Technical Specification Clause 1602.1 of MORD specifications.	53.70	No.



## DETAILS OF MEASUREMENT

कार्य का नाम :- मा0 मुख्यमंत्री घोषणा सं0 70/2017 के अन्तर्गत जनपद टिहरी के विकास खण्ड कीर्तिनगर के ग्राम धारी से बाग्यो तक मोटर मार्ग का निर्माण।

S.No	Item of work	No	L	W/B	H/D	Quantity
1	2	3	4	5	6	7
1	Excavation in foundation for retaining, breast walls etc, in all types of soils and rocks including all lead, lift and disposal of surplus material as per direction of engineer - in - charge, as per drawing and technical specifications (Clause 315.1 of MORD Specification)					
	Dumping point 1	1x 1	20.00	1.50	1.00	30.00 Cum.
		1x 2	12.00	1.50	1.00	36.00 Cum.
	Dumping point 2	1x 1	20.00	1.50	1.00	30.00 Cum.
		1x 2	10.00	1.50	1.00	30.00 Cum.
	Dumping point 3	1x 1	20.00	1.50	1.00	30.00 Cum.
		1x 2	10.00	1.50	1.00	30.00 Cum.
					<b>Total</b>	<b>186.00 Cum.</b>
2	Providing and laying of wire crates 3.00x1.50x1.50 in size with GI wire conforming to IS:280&IS:4826 in 150mmx 150mm mesh laid with stone boulders as per direction of Engineer-in- charge. (As per PWD Uttarakhand specifications) GI wire 10 gauge 3WG					
	Dumping point 1	1x 1	20.00	1.50	5.00	150.00 Cum.
		1x 2	12.00	1.50	5.00	180.00 Cum.
	Dumping point 2	1x 1	20.00	1.50	5.00	150.00 Cum.
		1x 2	10.00	1.50	5.00	150.00 Cum.
	Dumping point 3	1x 1	20.00	1.50	5.00	150.00 Cum.
		1x 2	10.00	1.50	5.00	150.00 Cum.
					<b>Total</b>	<b>930.00 Cum.</b>
3	Required area of Civil Land					
	Dumping point 1	1x 1	20.00	10.00	-	200.00 Sqm
	Dumping point 2	1x 1	20.00	15.00	-	300.00 Sqm
	Dumping point 3	1x 1	20.00	15.00	-	300.00 Sqm
					<b>Total</b>	<b>800.00 Sqm</b>
	10000 Sqm = One Hect.					0.0800 Hec
	Area of dumping yard in Civil Land					0.08 Hec

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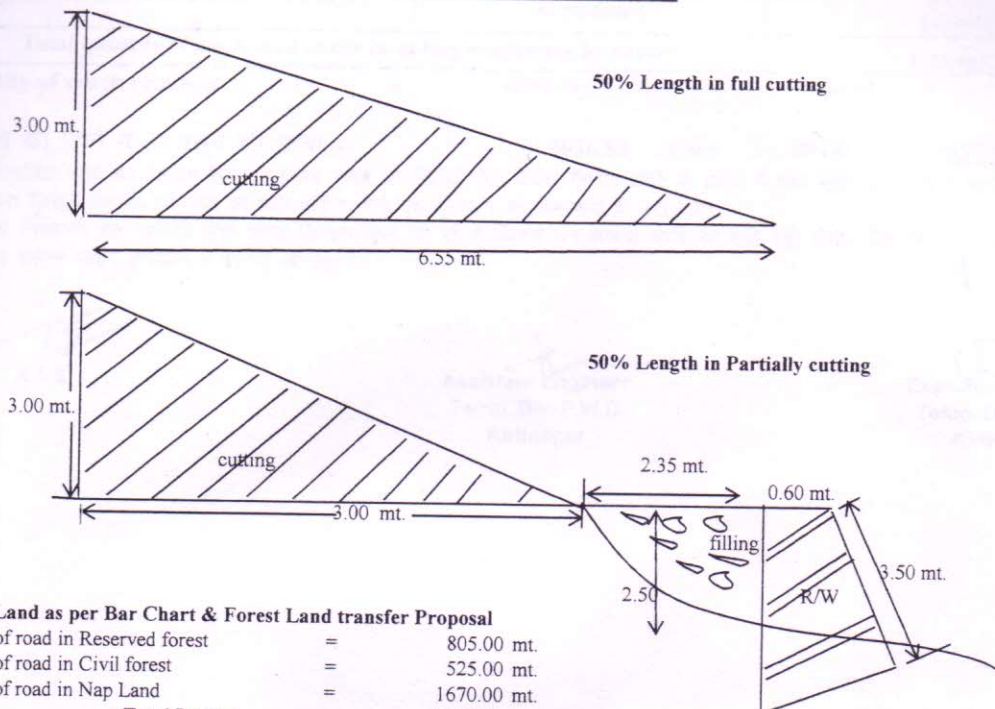


## DETAILS OF MEASUREMENT

कार्ड का नाम :- मा0 मुख्यमंत्री घोषणा सं0 70/2017 के अन्तर्गत जनपद टिहरी के विकास खण्ड कीर्तिनगर के ग्राम घारी से बाग्यो तक मोटर मार्ग का निर्माण।

### Total quantity of Muck generated from road cutting

#### Typical X-Section of Road



#### Forest Land as per Bar Chart & Forest Land transfer Proposal

A	Length of road in Reserved forest	=	805.00 mt.
B	Length of road in Civil forest	=	525.00 mt.
C	Length of road in Nap Land	=	1670.00 mt.
	<b>Total Length</b>	=	<b>3000.00 mt.</b>
	<b>Total Forest Length</b>	=	<b>1330.00 mt.</b>

#### Calculation of Muck As Above Length

Assuming 50% Length in Full Cutting & 50% Length in Partially Cutting & Partially Filling

1 (i)	Quantity of muck generated from full cutting	1	x	1/2	665.00	6.55	3.00	6533.63	Cum.	
1 (ii)	Quantity of muck generated from Partial cutting	1	x	1/2	665.00	3.00	3.00	2992.50	Cum.	
2	Quantity of muck from scupper & catch pit									
a.	Quantity of muck from scupper in civil land & Forest Land	1	x	11.00	3.85	3.00	3.00	381.15	Cum.	
b.	Quantity of muck from catch pit in civil land & Forest Land	1	x	11.00	(1.5x1.5+2.1x2.1)/2		2.50	183.15	Cum.	
c.	Quantity of muck from Excavation of walls in civil land & Forest Land	1	x	1/3	665.00	(0.60+1.60)/2		3.50	853.42	Cum.
d.	Quantity of muck generated from excavation for wirecrate for dumping zones	As per details attached						186.00	Cum.	
	Quantity of muck from SI No 1. & 2 as above.						G-Total	11129.85	Cum.	
3	Taking E.B, O.R & H.R @ 50%, 20%, & 30% respectively									
i.	50% E.B	11129.85	x	0.50	=			5564.92	Cum.	
ii.	20% O.R.	11129.85	x	0.20	=			2225.97	Cum.	
iii.	30% H.R.	11129.85	x	0.30	=			3338.95	Cum.	
						Total =		11129.84	Cum	
4	Quantity of muck as swell factor of ( E.B. only )	1.2	x	5564.92		6677.90		Cum		
5	Quantity of total muck from point ii., iii., & 4	Sl. No (ii + iii + 4) =				12242.82		Cum		
	Quantity of total muck Generated				Say	12242.82		Cum		
Disposal & use of material										
1	Quantity used for super elevation, grade improvement & patrie filling of road @ 20% of Muck generated	12242.82	x	10/100			2448.56	Cum		
2	Quantity erodes by wind and water @ 10% of ( E.B. only )	6677.90	x	10/100			1001.69	Cum		
3	Quantity of stones used in R/W in 50% length	= 665.00 x (0.60+1.77)/2 x 3.50				2758.09		Cum		
4	Quantity of muck disposed in filling (retained by R/W) in 50% length	= (665.00 x 2.35 x 2.50)/3				1302.29		Cum		

सहायक अभियन्ता  
अस्थाई खण्ड इंजीनियर  
टीनगर-मु० कीर्तिनगर टि० ४०

5	Quantity of stones used in Scuppers	= $1 \times 11 \times 6.55 \times (0.60+1.20)/2 \times 1.80$	116.72	Cum
6	Quantity of stones used in catch pit			
(i.)	Back Wall	= $1 \times 11 \times (4.16+3.44) \times (0.60+0.97) \times$	262.50	Cum
(ii.)	Side Walls	= $2 \times 11 \times (2.83+2.47) \times (0.60+0.97) \times$	366.12	Cum
7	Quantity of stones used in Wire Crate for 3 dumping zones	As per details	930.00	Cum
Total quantity of muck used at site including weathering by nature			9185.98	Cum
Quantity of muck retained			12242.82	
			9185.98	
				3056.84 Cum.

निस्तारित की जाने वाली मलवे की मात्रा =

3056.84 Cum

अथवा

3057.00

Cu

इस प्रकार से उत्सर्जित मलवे का लगभग सम्पूर्ण उपयोग सतह की रिग्रेडिंग एवं दीवार निर्माण आदि के प्रयोग में तथा सुपर एलीवेशन व पटरी फिलिंग आदि में हो जायेगा जिससे स्थानीय वनस्पति को क्षति नहीं पहुंचेगी एवं भू-क्षरण की सम्भावना भी नहीं होगी।

अवशेष मलवे के निस्तारण हेतु मार्ग पर ऐसी जगह चिन्हित किये जा रहे हैं जिससे वन सम्पदा आदि की क्षति नहीं होगी। निस्तारित किये जाने वाले स्थानों का प्रस्ताव संलग्न लाईन डायग्राम में दर्शाया जा रहा है।

  
A.A.E

  
Assistant Engineer  
Temp. Div. P.W.D.  
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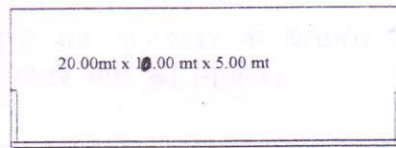
  
Executive Engineer  
Temp. Div. P.W.D.  
Kirtinagar



## DETAILS OF MEASUREMENT

साथ मुख्यमंत्री घोषणा सं० ७०/२०१७ के अन्तर्गत जनपद टिहरी के विकास खण्ड कीर्तिनगर के ग्राम धारी से बाग्यो तक मोटर मार्ग का निर्माण।

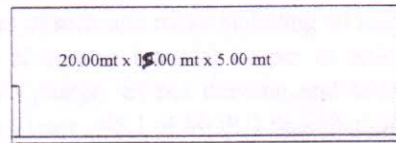
### Dumping Zone - 1



Plan of dumping zone 1.

Capacity Of Dumping Zone No. 1	=	1 x 1	20.00	10.00	5.00	1000.00	Cum
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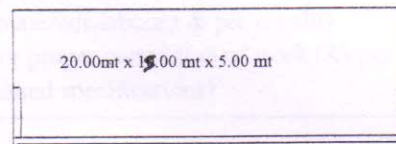
### Dumping Zone - 2



Plan of dumping zone 2.

Capacity Of Dumping Zone No. 2	=	1 x 1	20.00	15.00	5.00	1500.00	Cum
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### Dumping Zone - 3



Plan of dumping zone 3

Capacity Of Dumping Zone No. 3	=	1 x 1	20.00	15.00	5.00	1500.00	Cum
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Total quantity of muck retained by Dumping zone = 4000.00 cum.

A.A.E


Assistant Engineer  
Temp. Div. P.W.D.  
Kirtinagar


## BILL OF QUANTITY

मा0 मुख्यमंत्री घोषणा सं0 70/2017 के अन्तर्गत जनपद टिहरी के विकास खण्ड कीर्तिनगर के ग्राम घारी से बाग्यो तक मोटर मार्ग का निर्माण।

Sl. No.	Item of work	Quantity	Unit	Rate	Per	Amount
1	2	3	4	5	6	7
1	Excavation in foundation for retaining, breast walls etc, in all types of soils and rocks including all lead, lift and disposal of surplus material as per direction of engineer - in - charge, as per drawing and technical specifications Clause 305.1 of MORD Specification	186.00	Cum.	337.40	Cum.	62756.40
2	Random Rubble Masonary laid dry in breast wall, retaining wall, parapets, scupper etc. Including supply of all materials, labour, t & p & royalty etc, required for proper completion of work. (As per PWD Uttarakhand specifications)	930.00	Cum.	1488.90	Cum.	1384677.00
				<b>Total</b>		<b>1447433.40</b>

  
A.A.E

  
Assistant Engineer  
Prov. Div. P.W.D.  
New Tehri

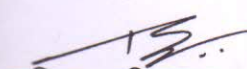
  
Executive Engineer  
Prov. Div. P.W.D.  
New Tehri





## आगणन की लागत का सारांश

**Name of Work :-** मा0 मुख्यमंत्री घोषणा सं0 70/2017 के अन्तर्गत जनपद टिहरी के विकास खण्ड कीर्तिनगर के ग्राम धारी से बाग्यो तक मोटर मार्ग का निर्माण।

क्रम संख्या	विवरण	लागत (लाख में)
1	मा0 मुख्यमंत्री घोषणा सं0 70/2017 के अन्तर्गत जनपद टिहरी के विकास खण्ड कीर्तिनगर के ग्राम धारी से बाग्यो तक मोटर मार्ग का निर्माण।	Rs.1,447,433.40
	Add 12% G.S.T.	Rs.173,692.01
	योग	Rs.1,621,125.41
	अर्थात् लाख रू0 में	Rs.16.21

  
कनिष्ठ अभियन्ता  
अ0ख0, लो0नि0वि0 श्रीनगर  
मुख्यालय-कीर्तिनगर

  
सहायक अभियन्ता  
अ0ख0, लो0नि0वि0 श्रीनगर  
मुख्यालय-कीर्तिनगर

  
अधिशाली अभियन्ता  
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मुख्यालय-कीर्तिनगर