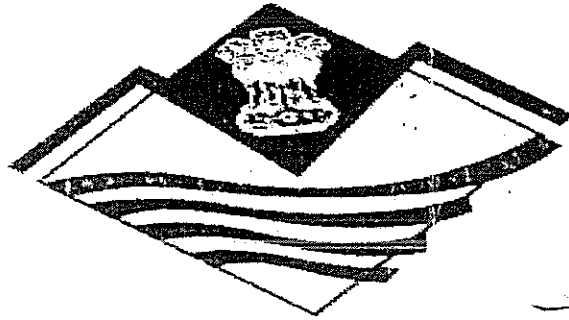


उत्तराखण्ड शासन

लोक निर्माण विभाग



उत्तराखण्ड सरकार

8वां वृत्त, लोक निर्माण विभाग
नई टिहरी

अस्थाई खण्ड, लो०नि०वि० श्रीनगर
मुख्यालय—कीर्तिनगर

मलवा निस्तारण प्रस्ताव

कार्य का नाम:

Construction of Motor road from Sylsaur-Panyali-
Bantolikhal- Nailchami motor road Under state
sector in Kirtinagar/Ghanshali block of District
Tehri

लम्बाई:—

6.000 कि०मी०

अनुमानित लागत

Rs. 52.21

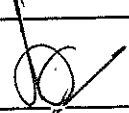
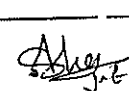
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INDEX

Name Of Work:- Construction of Motor road from Sylsaur-Panyali-Bantolikhali- Nailchami motor road Under state sector in Kirtinagar/Ghanshali block of District Tehri

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9	Bill Of Quantity	
10	Summary of Estimated Cost	

List of Names of Concerned Engineers Associated With The Estimating & Costing

Sl. No.	Name of Officials	Designation	Signature With Date
1	Er.Vinod Negi	Executive Engineer	
2	Er. H.B.Maithani	Assistant Engineer	
3	Er. Arvind Kumar Dyundi	Junior Engineer (Technical)	
4	Er. Asha Lata	Junior Engineer	

प्रतिवेदन

का नाम:- जनपद टिहरी गढ़वाल के विधान सभा क्षेत्र देवप्रयाग के विकास खण्ड कीर्तिनगर के अन्तर्गत खोला धारपयांकोटी मोटर मार्ग के अन्तिम बिन्दु से स्यालसौड़ पनयाली होते हुये बणतोलीखाल नैलचामी तक मोटर मार्ग का निर्माण कार्य (लम्बाई 6.00 कि०मी०)

जनपद टिहरी गढ़वाल के विकासखण्ड कीर्तिनगर में मुख्यमंत्री ग्राम सड़क ना के अन्तर्गत खोला धारपयांकोटी मोटर मार्ग के अन्तिम बिन्दु से स्यालसौड़ पनयाली होते बणतोलीखाल नैलचामी तक मोटर मार्ग के कार्य की स्वीकृति शासनादेश 382/111 17-10 (एम०एल०ए०)/2017 दिनांक 8.08.2017 द्वारा कुल लम्बाई 6.00 कि०मी०, लागत 52.21 लाख प्रथम चरण हेतु प्राप्त हुई है। उपरोक्त मोटर मार्ग पर वन भूमि पड़ने के कारण वन हस्तान्तरण पत्रावली गठन की कार्यवाही की जा रही है।

अतः उक्त के क्रम में मलवा निस्तारण प्रस्ताव गठित किया जा रहा है।

इस विस्तृत प्रस्ताव में मलवा निस्तारण हेतु छः डम्पिंग जोन बनाये गये हैं। मलवा निस्तारण करने हेतु वायरकेट द्वारा रिटेनिंग वॉल का निर्माण किया जायेगा।

उपरोक्त वर्णित कार्य हेतु कुल लागत रु० 52.21 लाख का प्रस्ताव गठित स्वीकृति हेतु प्रस्तुत है।

सहायक अभियन्ता
अ०ख०, लो०नि०वि० श्रीनगर,
मुख्यालय-कीर्तिनगर


अधिशर्मा अभियन्ता
अ०ख०, लो०नि०वि० श्रीनगर,
मुख्यालय-कीर्तिनगर

Analysis of Rate

Name Of Work: Construction of Motor road from Sylsaur-Panyali- Bantolikhal-
Nailchami motor road Under state sector in
Kirtinagar/Ghanshali block of District Tehri

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. 294.80
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 150mm x 150mm mesh laid with stoneboulders. as per direction of Engineer-in- charge. (As per PWD Uttarakhand specifications)	Cu.m	Rs. 1,402.50


J.E.


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


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

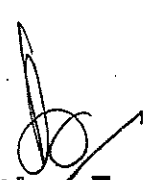
SPECIFICATIONS

Name Of Work:- Construction of Motor road from Sylsaur-Panyali-
Bantolikhal- Nailchami motor road Under state
sector in Kirtinagar/Ghanshali block of District
Tehri

ALL THE WORKS SHALL BE EXECUTED STRICTLY AS
PER THE APPROVED SPECIFICATIONS OF
UTTARANCHAL PUBLIC WORKS DEPARTMENT AND
ISSUED CIRCULARS / DIRECTIONS BY CHIEF
ENGINEER

Assistant Engineer

Temp. Div. PWD Srinagar
Headquarter: Kirtinagar


Executive Engineer

Temp. Div. PWD Srinagar
Headquarter: Kirtinagar

DETAILS OF MEASUREMENT

Name of work- Construction of Motor road from Sylsaur-Panyali- Bantolikhal- Nailchami motor road Under state sector in Kirtinagar/Ghanshali block of District Tehri

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 in all types of soils and rocks cu.m including lead, lift and disposal of surplus material as per direction of engineer - in - charge					
	For Dumping Zone NO-1					
	Quantity for R/W	1x 1	24.00	1.50	0.75	27.00 Cum.
	Quantity for R/W	1x 2	9.00	1.50	0.75	20.25 Cum.
	For Dumping Zone NO-2					
	Quantity for R/W	1x 1	50.00	1.50	0.75	56.25 Cum.
	Quantity for R/W	1x 2	7.50	1.50	0.75	16.88 Cum.
	For Dumping Zone NO-3					
	Quantity for R/W	1x 1	60.00	1.50	0.75	67.50 Cum.
	Quantity for R/W	1x 2	24.00	1.50	0.75	54.00 Cum.
	For Dumping Zone NO-4					
	Quantity for R/W	1x 1	60.00	1.50	0.75	67.50 Cum.
	Quantity for R/W	1x 2	15.00	1.50	0.75	33.75 Cum.
	For Dumping Zone NO-5					
	Quantity for R/W	1x 1	60.00	1.50	0.75	67.50 Cum.
	Quantity for R/W	1x 2	20.00	1.50	0.75	45.00 Cum.
	For Dumping Zone NO-6					
	Quantity for R/W	1x 1	42.00	1.50	0.75	47.25 Cum.
	Quantity for R/W	1x 2	18.00	1.50	0.75	40.50 Cum.
					Total	301.50 Cum.
Providing and laying of wire crates 3.00x1.50x1.50 in size with GI wire conforming 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)						
	For Dumping Zone NO-1					
	Quantity for R/W	1x 1	24.00	1.50	4.50	162.00 Cum.
	Quantity for R/W	1x 2	9.00	1.50	4.50	121.50 Cum.
	For Dumping Zone NO-2					
	Quantity for R/W	1x 1	50.00	1.50	4.50	337.50 Cum.
	Quantity for R/W	1x 2	7.50	1.50	4.50	101.25 Cum.
	For Dumping Zone NO-3					
	Quantity for R/W	1x 1	60.00	1.50	4.50	405.00 Cum.
	Quantity for R/W	1x 2	24.00	1.50	4.50	324.00 Cum.

For Dumping Zone NO-4

Quantity for R/W	1x 1	60.00	1.50	4.50	405.00	Cum.
Quantity for R/W	1x 2	15.00	1.50	4.50	202.50	Cum.

For Dumping Zone NO-5

Quantity for R/W	1x 1	60.00	1.50	4.50	405.00	Cum.
Quantity for R/W	1x 2	20.00	1.50	4.50	270.00	Cum.

For Dumping Zone NO-6

Quantity for R/W	1x 1	42.00	1.50	4.50	283.50	Cum.
Quantity for R/W	1x 2	18.00	1.50	4.50	243.00	Cum.
				Total	3260.25	Cum.

3

(i)	Required area of Nap Land for Muck Dumping			As per Dumping Zones	0.1200	Hec.
(ii)	Required area of Civil Land for Muck Dumping			As per Dumping Zones	0.1116	Hec.
(iii)	Required area of Reserve forest Land for Muck Dumping			As per Dumping Zones	0.2571	Hec.

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J.E.

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

SWELL FACTOR

TABLE 4.4 Representative properties of earth and rock

Material	Bank weight		Loose weight		Percent swell	Swell factor*
	lb/cy	kg/m ³	lb/cy	kg/m ³		
Clay, dry	2,700	1,600	2,000	1,185	35	0.74
Clay, wet	3,000	1,780	2,200	1,305	35	0.74
Earth, dry	2,800	1,660	2,240	1,325	25	0.80
Earth, wet	3,200	1,895	2,580	1,528	25	0.80
Earth and gravel	3,200	1,895	2,600	1,575	20	0.83
Gravel, dry	2,800	1,660	2,490	1,475	12	0.89
Gravel, wet	3,400	2,020	2,980	1,765	14	0.88
Limestone	4,400	2,610	2,750	1,630	60	0.63
Rock, well blasted	4,200	2,490	2,640	1,565	60	0.63
Sand, dry	2,600	1,542	2,260	1,340	15	0.87
Sand, wet	2,700	1,600	2,360	1,400	15	0.87
Shale	3,500	2,075	2,480	1,470	40	0.71

*The swell factor is equal to the loose weight divided by the bank weight per unit volume.

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अविभाजी अभियान
अस्थाई खाण्ड जोड मिडि
कीर्तिनगर

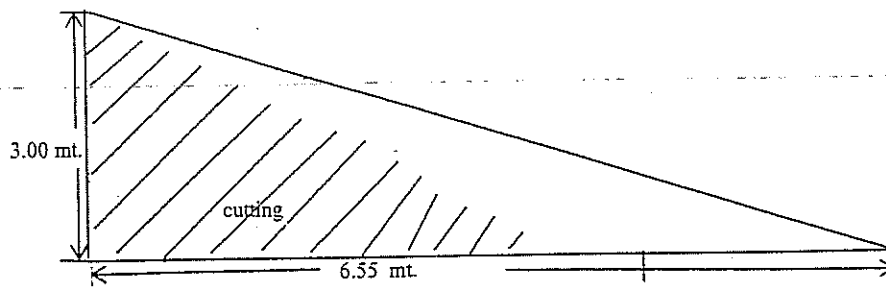
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DETAILS OF MEASUREMENT

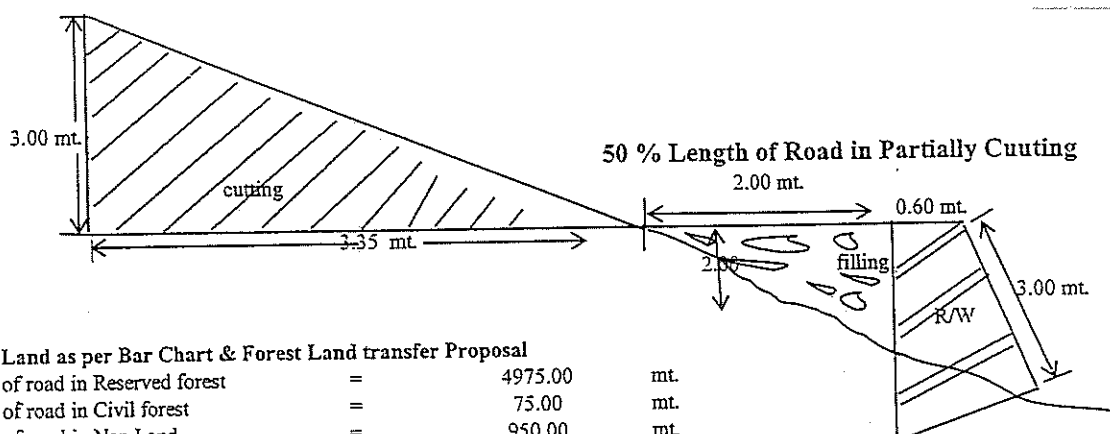
Name of work- Construction of Motor road from Sylsaur-Panyali- Bantolikhal- Nailchami motor road
Under state sector in Kirtinagar/Ghanshali block of District Tehri

Total quantity of Muck generated from road cutting

Typical X-Section of Road



50 % Length of Road in Full Cutting



50 % Length of Road in Partially Cutting

Forest Land as per Bar Chart & Forest Land transfer Proposal

A	Length of road in Reserved forest	=	4975.00	mt.
B	Length of road in Civil forest	=	75.00	mt.
C	Length of road in Nap Land	=	950.00	mt.
	Total Length	=	6000.00	mt.
	Total Forest Length	=	5050.00	mt.

Calculation of Muck As Above Length

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

1	Quantity of muck generated from cutting	1	x	1/2	2525.00	6.55	3.00	24808.13	Cum.	
	Quantity of muck generated from cutting	1	x	1/2	2525.00	3.35	3.00	12688.13	Cum.	
2	Quantity of muck from scupper & catch pit									
a	Quantity of muck from scupper in civil land forst land	1	x	40	6.55	3.80	2.20	2190.32	Cum.	
b	Quantity of muck from catch pit in civil land land forst land	1	x	40	(1.5x1.5+2.1x2.1)/2		2.20	293.04	Cum.	
c	Quantity of muck from Excavation of Walls in civil land land forst land	1	x1/3	2525	(0.60+1.60)/2		3.00	2777.50	Cum.	
d	Quantity of muck generated from excavation for wirecrate for dumping zones	1	x	As per detail attached					301.50	
	Quantity of muck from Sl No 1. & 2 as above.						G-	43058.62	Cum.	
3	Taking E.B, O.R & H.R @ 50%, 20%, & 30% respectively									
i.	30% E.B			43058.62	x	0.30	=	12917.59	Cum.	
ii.	40% O.R.			43058.62	x	0.40	=	17223.45	Cum.	
iii.	30% H.R.			43058.62	x	0.30	=	12917.59	Cum.	
	Taking Swell factor 0.83						Total =	43058.63	Cu	
iv	Quantity of muck as swell factor of (Earth, Gravel		x		12917.59/0.83			15563.36	Cum	
5	Quantity of total muck from point ii., iii., & iv	Sl. No (ii + iii + iv) =						45704.40	Cum	
	Quantity of total muck Generated				Say			45704.40	Cum	

J.E
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Disposal & use of material

1	Quantity used for super elevation, grade improvement & patrie filling of road @ 10%	45642.15	10%	4564.22	Cum
2	Quantity erodes by wind and water @ 10% of (E.B. only)	15501.11	10%	1550.11	Cum
	Quantity of stones used in R/W in 50% length	2525.00	(0.60+1.60)/2x3.5	8332.50	Cum
3	Quantity of muck disposed in filling (retained by R/W) in 50% length	2525.00	2.00 2.00/2	5050.00	Cum
4	Quantity of Stones used in Scuppers	40 6.55	(0.60+1.20)/2 1.80	424.44	Cum
5	Quantity of stones used Catch pit				
	(i) Back Wall	40	(4.16+3.44)/2 (0.60+0.97)/2 2.00	250.572	Cum
	(ii) Side wall	2x40	(2.83+2.47)/2 (0.60+0.97)/2 2.00	332.84	Cum
6	Quantity of stones used in Wire Cate Walls for 6 dumping zones	As per detail attached			3260.25 Cum
	Total quantity of muck used at site including weathering by nature			23764.93	Cum

Quantity of muck retained

~~45704.40~~

23764.93

~~21939.47~~ Cum.

निस्तारित की जाने वाली मलवे की मात्रा =

21939.47 Cum

Capisity of Dumping Zones from Km 1 to 6

21991.50 Cum

अनिस्तारित की जाने वाली मलवे की मात्रा =

Nil Cum

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 पहुँचेगी 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 लार्डन डायग्राम में दर्शाया जा रहा है।

J.E.
J.E.

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

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

DETAILS OF MEASUREMENT

Name of work- Construction of Motor road from Sylsaur-Panyali- Bantolikhal- Nailchami
motor road Under state sector in Kirtinagar/Ghanshali block of District Tehri

Dumping Zone - A (Km-1 ,Chainage 0.425-450 Link Road)

Length	Width	Height Avg	Unit
24.00	9.00	4.50	Mtr

Plan of dumping zone 1.

Area of Civil Land in Dumping Zone No-1	1x1	24.00	9.00		216.00	Sqm
Capacity Of Dumping Zone No. 1	1x1	24.00	9.00	4.50	972.00	Cum

Dumping Zone - B (Km-1,Chainage 0.525-0.575)

Length	Width	Height Avg	Unit
50.00	7.50	4.50	Mtr

Plan of dumping zone 2.

Area of Reserve forest Land in Dumping Zone No-2	1x1	50.00	7.50		375.00	Sqm
Capacity Of Dumping Zone No. 2	1x1	50.00	7.50	4.50	1687.50	Cum

Dumping Zone - C (Km-2,Chainage 1.250-1.310)

Length	Width	Height Avg	Unit
60.00	24.00	4.50	Mtr

Plan of dumping zone 3.

Area of Reserve Land in Dumping Zone No-3	1x1	60.00	24.00		1440.00	Sqm
Capacity Of Dumping Zone No. 3	1x1	60.00	24.00	4.50	6480.00	Cum

Ahs JP

Dumping Zone - D (Km-2, Chainage 1.525-1.585)

Length	Width	Height Avg	Unit
60.00	15.00	4.50	Mtr

Plan of dumping zone 4.

Area of Civil Land in Dumping Zone No-4	1x1	60.00	15.00		900.00	Sqm
Capacity Of Dumping Zone No. 4	1x1	60.00	15.00	4.50	4050.00	Cum

Dumping Zone - E (Km 3, Chainage 2.550-2.610)

Length	Width	Height Avg	Unit
60.00	20.00	4.50	Mtr

Plan of dumping zone 5.

Area of Naap Land in Dumping Zone No-5	1x1	60.00	20.00		1200.00	Sqm
Capacity Of Dumping Zone No. 5	1x1	60.00	20.00	4.50	5400.00	Cum

Dumping Zone - F (Km 5 ,Chainage 4.350-4.400)

Length	Width	Height Avg	Unit
42.00	18.00	4.50	Mtr

Plan of dumping zone 6.

Area of Reserve Land in Dumping Zone No-6	1x1	42.00	18.00		756.00	Sqm
Capacity Of Dumping Zone No. 6	1x1	42.00	18.00	4.50	3402.00	Cum

Total Area in Naap Land in Dumping Zone No 1 to 6					1200.00	1200.00
Total Area in Civil Land in Dumping Zone No 1 to 6		216.00	+	900.00		1116.00
Total Area in Reserve Forest Land in Dumping Zone No 1 to 6	375.00	+	1440.00	+	756.00	2571.00

Total Qty in Naap Land in Dumping Zone No 1 to 6					5400.00	5400.00
Total Qty in Civil Land in Dumping Zone No 1 to 6		972.00	+	4050.00		5022.00
Total Qty in Reserve Forest Land in Dumping Zone No 1 to 6	1687.50	+	6480.00	+	3402.00	11569.50
Total Capacity of Dumping Zones From Km 1 to 6						Total- 21991.50

HP

BILL OF QUANTITY

Name of work- Construction of Motor road from Sylsaur-Panyali- Bantolikhal-Nailchami motor road Under state sector in Kirtinagar/Ghanshali block of District

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 in all types of soils and rocks cu.m including lead, lift and disposal of surplus material as per direction of engineer - in - charge	301.50	Cum.	294.80	Cum.	88882.20
2	Random Rubble Masonary laid dry in breast wall, retaining wall, parapets, scupper cu.m etc. Including supply of all materials, labour, t & p & royalty etc, required for proper completion of work. (As per PWD Uttarakhand	3260.25	Cum.	1402.50	Cum.	4572500.63
				Total		4661382.83


J.E.

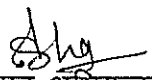

Assistant Engineer
Prov. Div. P.W.D.
New Tehri


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

आगणन की लागत का सारांश

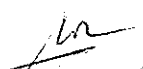
Name of Work :- Construction of Motor road from Sylsaur-Panyali- Bantolikhal- Nailchami motor road Under state sector in Kirtinagar/Ghanshali block of District Tehri

क्रम संख्या	विवरण	लागत (लाख में)
1	Construction of Motor road from Sylsaur-Panyali- Bantolikhal- Nailchami motor road Under state sector in Kirtinagar/Ghanshali block of District Tehri	Rs.4,661,382.83
	Add G.S.T @ 12 %	Rs.559,365.94
	योग	Rs.5,220,748.76
	अर्थात् लाख रू० में	Rs.52.21


कनिष्ठ अभियन्ता
अ०ख०, लो०नि०वि० श्रीनगर
मुख्यालय-कीर्तिनगर


सहायक अभियन्ता
अ०ख०, लो०नि०वि० श्रीनगर
मुख्यालय-कीर्तिनगर


अभियन्ता
अ०ख०, लो०नि०वि० श्रीनगर
मुख्यालय-कीर्तिनगर


वन क्षेत्राधिकारी
मानिकपुर
डोंगरी


उप प्रभारी
(हेमनगर)
नरेन्द्रनगर वन


वन क्षेत्राधिकारी
मिलाना रेंज वनराला

कार्य का नाम- जनपद टिहरी के विकासखण्ड कीर्तिनगर के अन्तर्गत खोला धारपंयाकोटी मोटर मार्ग के अन्तिम बिन्दु से स्यालसौद पनयाली होते हुये वन्तोलीखाल नैलचामी तक मोटर मार्ग का निर्माण



डाम्पिंग जोन A Civil Land



डाम्पिंग जोन B, रिजर्व वन

Surain
S.E

HA
HE

[Signature]

अधिसूचना अधिवक्ता
ग्रेटराई खण्ड लो० नि० वि०
कीर्तिनगर

कार्य का नाम— जनपद टिहरी के विकासखण्ड कीर्तिनगर के अन्तर्गत खोला धारपंयाकोटी मोटर मार्ग के अन्तिम बिन्दु से स्यालसौद पनयाली होते हुये वन्तोलीखाल नैलचामी तक मोटर मार्ग का निर्माण



डायिंग ज़ोन C



डायिंग ज़ोन D

Signature
J.E

Signature

Signature
अधिशाली अधिवक्ता
अस्थाई समूह को 10 दि० वि०

कार्य का नाम— जनपद टिहरी के विकासखण्ड कीर्तिनगर के अन्तर्गत खोला धारपंयाकोटी मोटर मार्ग के अन्तिम बिन्दु से स्यालसौद पनयाली होते हुये वन्तोलीखाल नैलचामी तक मोटर मार्ग का निर्माण



शक्ति जोन F



शक्ति जोन E

Sharma
J.B

AP
AR

8

अधिशक्ती अभियन्ता
अस्थाई खण्ड लो० नि० वि०
कीर्तिनगर