

Name of Road ÷ PAKKI CHAVK TO CHAWCHAVLYG

W

MBNO 651

MLZ-3035 Schedule XLV-Form No. 134

Executive Engineer
Rural Works Division
Works Division

DIVISION

MASHAKH SUB-DIVISION

Measurement Book

J.K and Company

Name of Work—
 Situation of Work—
 Agency by which work is executed—
 Date of Measurement—
 No. and date of agreement

(These four lines should be repeated at the commencement of the measurement relating to each work)

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
1st and Final Bill					
1st and Final Bill:					
Name of road.	construction of road				
	from pakari Chowak TO				
	chamaraiga				
Agency.	J. K. and company				
	vill. Karm Kudaria				
	P.O. Dumargam Barga				
	P.S. Masbakh				
	Dist. Sonam (Bihar)				
Ag. No.	/MR-3054/MBD/2020-21				
const. cost.					
Date of commencement	26.05.2020				
Time of completion	25.02.2021				
Date of Entry.					
	from				
	measurement				
(1)	Clearing and grubbing				
	road land -- old -- E/I				
	2x	10x	30 Mx	1.0	= 600 M ²
	2x	10x	30 Mx	1.0	= 600 M ²
	2x	10x	30 Mx	1.0	= 600 M ²
	2x	10x	30 Mx	1.0	= 600 M ²
	2x	10x	30 Mx	1.0	= 600 M ²

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	2 x	10 x	30 M x	1.0	= 600 M ²
	2 x	10 x	30 M x	1.0	= 600 M ²
	2 x	3 x	30 M x	1.0	= 180 M ²
	2 x	1 x	10 M x	1.0	= 20 M ²
				T =	4400 M ²
				or	0.44 Hect
(2)	construction of sub-grade				
	and earthen shoulder				
	with approved material				
	obtained from borrow pit				
	as per Tech spec				

	only flange (drifted due				
	to sun coil)				
	2 x 10 x 30 M x	0.70 x	0.30		= 126 M ³
	2 x 10 x 30 M x	0.70 x	0.30		= 126 M ³
	2 x 10 x 30 M x	0.70 x	0.30		= 126 M ³
	2 x 10 x 30 M x	0.70 x	0.30		= 126 M ³
	2 x 10 x 30 M x	0.70 x	0.30		= 126 M ³
	2 x 10 x 30 M x	0.70 x	0.30		= 126 M ³
	2 x 10 x 30 M x	0.70 x	0.30		= 126 M ³
	2 x 3 x 30 M x	0.70 x	0.30		= 37.80 M ³
	2 x 1 x 10 M x	0.70 x	0.30		= 4.20 M ³
				T =	924 M ³
(3)	construction of granular				
	sub-base by providing				

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
well graded material					
also as per Tech Spec.					
pot measurement G.S.B.					
Area.	1 x	9.60 x	2.20	= 21.12 M ²	
	1 x	7.95 x	2.60	= 20.67 M ²	
	1 x	8.20 x	1.90	= 15.58 M ²	
	1 x	10.80 x	2.40	= 25.92 M ²	
	1 x	8.30 x	2.50	= 20.75 M ²	
	1 x	9.60 x	2.75	= 26.40 M ²	
	1 x	10.30 x	2.80	= 28.84 M ²	
	1 x	9.65 x	2.90	= 27.98 M ²	
	1 x	9.30 x	1.90	= 17.67 M ²	
	1 x	8.60 x	1.60	= 13.76 M ²	
	1 x	9.70 x	1.85	= 17.94 M ²	
	1 x	11.20 x	2.10	= 23.52 M ²	
	1 x	9.30 x	2.19	= 20.36 M ²	
				T 280.51 M ²	
Qty of G.S.B = 280.51 M ² x 0.175 = 49.08 M ³					
(4) W.B.M. G.L.					
p/v, laying, spreading					
and compacting stone					
aggregat. of specific					
size - as per					
technical spec.					
from above					
40 S.					

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Area of WBM Grt same as area of G.S.B.					280.51 M ²
Further pot measurement of W.B.M Grt (Area).					
1 x 10.65 x 2.45					= 26.09 M ²
1 x 9.45 x 2.50					= 23.62 M ²
1 x 12.25 x 2.30					= 28.17 M ²
1 x 12.10 x 2.10					= 25.41 M ²
1 x 9.70 x 2.20					= 21.34 M ²
1 x 10.90 x 2.70					= 29.43 M ²
1 x 10.80 x 1.80					= 19.44 M ²
1 x 9.60 x 1.90					= 18.24 M ²
1 x 15.20 x 2.80					= 42.56 M ²
1 x 14.30 x 2.30					= 32.89 M ²
1 x 13.35 x 2.65					= 35.37 M ²
1 x 9.20 x 1.70					= 15.64 M ²
1 x 8.25 x 1.85					= 15.26 M ²
1 x 11.48 x 1.72					= 19.74 M ²
				T.	633.71 M ²
Qty of WBM Grt					
					633.71 M ² x 0.075 M = 47.52 M ³
(5) p/v W.B.M. Grt					
p/v laying, spreading and compacting stone aggregate of specific size as per					

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Area of WBM Gr-I same as Area of WBM Gr-II					633.71 m ²
Further part measurement of W.B.M Gr-III.					
1 x 13.30 x 2.75					= 36.57 m ²
1 x 12.10 x 2.60					= 31.46 m ²
1 x 11.80 x 2.10					= 24.78 m ²
1 x 13.40 x 2.40					= 32.16 m ²
1 x 11.90 x 2.50					= 29.75 m ²
1 x 15.70 x 2.65					= 41.60 m ²
1 x 10.50 x 1.90					= 19.95 m ²
1 x 11.30 x 1.65					= 18.64 m ²
1 x 16.50 x 2.60					= 42.90 m ²
1 x 17.90 x 2.70					= 48.33 m ²
1 x 14.10 x 2.30					= 32.43 m ²
1 x 15.30 x 2.80					= 42.84 m ²
1 x 16.10 x 1.90					= 30.59 m ²
1 x 13.40 x 1.80					= 24.12 m ²
1 x 15.70 x 2.45					= 38.46 m ²
1 x 14.30 x 2.70					= 38.61 m ²
1 x 9.35 x 1.35					= 12.62 m ²
				T	1179.52 m ²
Qty of WBM Gr-III					
1179.52 m ² x 0.075 m					= 88.46 m ³
				Ans	= 88.43 m ³

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(6)	prime coat				
	preparing and applying				
	primer coat with bitumen				
	emulsion SS ₁ or				
	prepared granular base				
	- do - Tech. specifications				
	Area = $\frac{88.43}{0.075}$				1179.06 m ²
(7)	tack coat				
	p/v and applying tack				
	coat with bitumen				
	emulsion (RS-1) - do				
	- do as per Tech. spec.				
	same area as prime coat				1179.06 m ²
(8)	patching over WBM				
	using M.S.S. for				
	bituminous and				
	existing C.C. pavement				
	- do as per Tech. spec.				
	Area same as Tack coat				1179.06 m ²
(9)	Tack coat				
	p/v and applying tack				
	coat with bitumen				
	emulsion (RS ₁) -				
	- do as per Tech. spec.				

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	1 x	10 x	30 M	x 3.75	= 1125 M ²
	1 x	10 x	30 M	x 3.75	= 1125 M ²
	1 x	10 x	30 M	x 3.75	= 1125 M ²
	1 x	10 x	30 M	x 3.75	= 1125 M ²
	1 x	10 x	30 M	x 3.75	= 1125 M ²
	1 x	10 x	30 M	x 3.75	= 1125 M ²
	1 x	10 x	30 M	x 3.75	= 1125 M ²
	1 x	10 x	30 M	x 3.75	= 1125 M ²
	1 x	3 x	30 M	x 3.75	= 337.50
	1 x	1 x	10 M	x 3.75	= 37.50
				T =	8250 M ²
(10)	SDBC - p/v and				

	layers sandstone				
	bituminous concrete				
	do. as per MORTA				
	specification				
	Area same as tack coat				8250 M ²
	Qty of SDBC				
	8250 M ² x 0.025 M				= 206.25 M ³
(11)	kilometre stone				
	1) kilometre stone -				3 Nos
(12)	200 m stone				9 Nos
(13)	p/v direction and				
	place identification				
	signs with size more				
	chain 0.9 m size board				

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
		2 x 1.20	x 0.80	=	1.92 M ²
(14)		Retro reflective Traffic sign			
		(15) 600 mm triangular			
		-			50 Nos
(15)	(ii)	600 mm circular			
		-			8 Nos
(16)	(iii)	600 mm x 450 mm rectangular			
		-			13 Nos
(17)		Boundary pillar / guard post			
		-			36 Nos
(18)		pneumatic note collar and figure of any			

		shade			
		2 x 132		-	264 Nos
19	(20)	P/V Road marking with hot applied Thermoplastic - do			
		2 x 10 x 30 M	0.10	=	60 M ²
		2 x 10 x 30 M	0.10	=	60 M ²
		2 x 10 x 30 M	0.10	=	60 M ²
		2 x 10 x 30 M	0.10	=	60 M ²
		2 x 10 x 30 M	0.10	=	60 M ²
		2 x 10 x 30 M	0.10	=	60 M ²
		2 x 10 x 30 M	0.10	=	60 M ²
		2 x 3 x 30 M	0.10	=	18 M ²
		2 x 1 x 10 M	0.10	=	2 M ²

Continuation T = 440 M²

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	<u>ABSTRACT OF COST</u>				
	<u>Estimate of Bill</u>				
	<u>(Estimate of Bill)</u>				
(1)	clearing and grubbing road land.				
	Qty m ² MB P. 02				
0.44 Hec.	Q	Rs 49496.70/Hec			19799.70 21779.70
(2)	Construction of Sub-grade and earthen structure only from				
	Qty m ³ MB P. 02				
924 M ³	Q	Rs 176.96/M ³			163511.00
(3)	G.I.B. granular Sub-base mix well graded material.				
	Qty m ³ MB P. 03				
49.08 M ³	Q	Rs 2401.28/M ³			117855.00
(4)	P/V W.B.M. Gr II				
	Qty m ³ MB P. 04				
47.52 M ³	Q	Rs 4508.27/M ³			214233.00
(5)	P/V W.B.M. Gr III				
	Qty m ³ MB P. 05				
88.43 M ³	Q	Rs 4019.00/M ³			355400.00
(6)	prime coal (SS)				
	Qty m ³ MB P. 06				
1179.06 M ³	Q	Rs 41.32/M ³			48719.00

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(7)	Tack coat (Rq)				
Qty incl TMB	P-06				
1179.06	M ² Ck 14.01/M ²				16519.4
(8)	patch work over				
	WBM using m.s.s.				
	for bitumen & existing				
	c.c. pavement				
Qty incl TMB	P-06				
1179.06	M ² Ck 226.49/M ²				267045.4
(9)	Tack coat				
	p/v and applying				
	Tack coat work				
	bitumen emulsion (Rq)				
Qty incl TMB	P-07				
8250 M ²	Ck 11.75/M ²				96938.4
(10)	P/v S.D.B.C.				
	P/v laying semi-				
	dense-bituminous				
	concrete				
Qty incl TMB	P-07				
206.25	M ³ Ck 11120.23/M ³				2293547.4
(11)	Kilometre Stone				
Qty incl TMB	P-07				
3 nos	Ck 2345.83 Each				7037.4

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(12)	(i)	200 m	Stone		
		val TMB	P.	07	
9 Nos	(ii)	642.33 each			5781 = m
(13)		P/V direction and			
		placement of sign			
		val TMB	P.	08	
1.92 m ²	(iii)	12387.53	m ²		23784 = m
(14)		Retro-reflectorised			
		traffic sign			
		val TMB	P.	08	

(15)	(i)	600 mm triangular			
50 Nos	(ii)	3681.40 each			184070 = m
(15)	(iii)	600 mm circular			
8 Nos	(iv)	3780.75 each			30246 = m
(16)	(v)	600 mm x 450 mm			
		rectangular			
13 Nos	(vi)	3651.63 each			47471 = m
(17)		Boundary pillar			
		val TMB	P.	08	
36 Nos	(vii)	511.27 each			18406 = m
(18)		printing Nos letter			
		and figures of any			
		shape			

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	264 nos	0.51	each		133 = 00
($\frac{19}{20}$)	p/v	road marking			✓
		with hot applied			
		thermo-plastic			
	440 m ²	0.735	40/m ²		323576 =
($\frac{20}{21}$)	p/v	and fixing 'logs'			✓
		of maintenance project			
	2 nos	9391.11	each		18782 = 00
($\frac{21}{22}$)	p/v	plaster in cm (1:3)			
		in parapet			
	8.2 m ³	0.51	each		4182 = 00
	8.64 m ³	0.51	each		44086 = 00
($\frac{22}{23}$)	p/v	Plastering wall			
		cm (1:4)			
	60.48 m ³	150.80	/m ³		9120 = 00
($\frac{23}{24}$)	painting	two coats on			✓
		new concrete surface			
	175.68 m ²	95.63	/m ²		16800 = 00

Continuation T. 78. 4324838 =

C.O.

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
		10.12 -			4324838 =
4322858					4324838 =
43229	1/2	Labour cost			43248 =
518743	1/2	G.S.T			518980 =
48,84830			G.T. 10		48,87066 =
		14.6.20			

<u>Material Statement</u>					
1)	<u>G.S.B. (49.08 m³)</u>				
	stone aggregate	-			37.64 m ³
	sand	-			25.03 m ³
2)	<u>M.B.M. Gr. II (47.52 m³)</u>				
	stone material	-			57.49 m ³
	stone screening	-			12.83 m ³
	Binding material	-			3.80 m ³
3)	<u>M.B.M. Gr. III (88.43 m³)</u>				
	stone material	-			107 m ³
	stone screening	-			21.22 m ³
4)	<u>Emulsion (SS1) 117906</u>				
	SS1	-			1002.20 kg

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(5) <u>Emulsion (RS)</u>					
		1179.06 M			
		+ 8250.0 M			
		- 9429.06 M			
Emulsion RS					2592.99 kg
(6) <u>M.S.S. (1129.06 M²)</u>					
Bridman (590)					2.0 MT
stone chips					35.37 M
(7) <u>S.D.B.C (206.25 M³)</u>					
Bridman (590)					24.75 M
Stone chips					294.93 M
(8) <u>B/L (173) - (8.64 M³)</u>					

[illegible]

Continuation

MEMO of Payment
 Vrnol Rs. 48,84,830=

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
S.d 5%	244	242	245		
9-T 2%	97	697	=		
L. cess 1%	48	848	=		
S.G.S.T 1%	48	848	=		
C.G.S.T 1%	48	848	=		
S. fee 10%	36	753	=		
Roxlity-	88	299	=		
By cheque	42	713	95	=	
		48	848	30	=
Rupees forty eight Lakh Eighty four thousand					

Eight hundred thirty only.

Thy
 Executive Engineer
 Rural Works Department
 Works Division, Marhaura

25/6/20

25/6/20

Continuation