

MAHESY INEY S.C

MA.13.N10-3217

N.H.101 से राबुदु नर नार तक 99/1

एक निगोशियर - 63/SBD/2019-20

Measurement Book

Schedule XLV-Form No. 134

सर्वेक्षक वीर कल्याण

DIVISION

श्री अशोक कुमार खेडो आनंद

SUB-DIVISION

अध्यापक

MA.13.N10-3217

2nd & Final bill

13

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
N/W:- Construction of Road & C/D Work from NH-101 to Rampur Nur Nagar under Munsy SC at block Jalalpur.					
N/Agency - Dipu construction Agt. No - 63/SBD/2019-20					
Date of start - 15.10.2019					
Date of completion - 14.10.2020					
Date of measurement - 28.11.2021					
Items of work					
(1) Plv & fixing of reference pillars = 03 Nos.					
(2) clearing & grubbing of road land -					
2x 10x30.00m x 3.50m =					2100.00sqm
2x 10x30.00m x 3.50m =					2100.00sqm
2x 2x30.00m x 3.00m =					360.00sqm
2x 1x20.00m x 3.00m =					120.00sqm
2x 1x15.00m x 3.00m =					90.00sqm
Total =					4770.00sqm
					= 0.477 Hect

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
③ Box cutting — Excavation for roadway in soil using manual means.					
For B.T. portion —					
2x 10x30.00m x 0.525m x 0.10m					$= 31.50 \text{ m}^2$
2x 10x30.00m x 0.525m x 0.10m					$= 31.50 \text{ m}^2$
2x 2x30.00m x 0.525m x 0.10m					$= 6.30 \text{ m}^2$
2x 1x20.00m x 0.525m x 0.10m					$= 2.10 \text{ m}^2$
For P.C. portion —					
2x 10x30.00m x 0.375m x 0.10m					$= 22.50 \text{ m}^2$
2x 4x30.00m x 0.375m x 0.10m					$= 9.00 \text{ m}^2$
2x 1x25.00m x 0.375m x 0.10m					$= 1.87 \text{ m}^2$

Total = 104.77m²

④ Construction of embankment with material obtained from borrow pits with a lead up to 1000m & 100m.

Earthwork calculation —

Sl. No	chainage	C/S Area (m ²)	mean C/S Area (m ²)	Dist. (m)	volume (m ³)
1	0	3.749	1.874	0	0.00
2	50	2.740	3.249	50	162.20
3	100	3.220	2.980	50	149.00
4	150	2.974	3.097	50	154.85
5	200	3.603	3.288	50	164.40
6	250	3.095	3.349	50	167.45
7	300	3.251	3.173	50	158.65

Qty = 956.53

Continuation

m³

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
S.I. No	Chainage	9/5 Area	mean c/s Area	Dist	Volume
	(m)	(m ²)	(m ²)	(m)	(m ³)
			Avg B/F =		956.55 m ³
8	350	3.565	3.408	50	170.40 m ³
9	400	3.284	3.424	50	171.20
10	450	3.060	3.172	50	158.60
11	500	3.067	3.063	50	153.15
12	550	2.831	2.949	50	147.45
13	600	2.933	2.882	50	144.10
14	650	2.602	2.767	50	138.35
15	700	2.882	2.742	50	137.10
16	750	2.966	2.924	50	146.20
17	800	2.837	2.901	50	145.05
18	850	2.801	2.819	50	140.95
19	900	2.745	2.773	50	138.65
20	950	2.747	2.746	50	137.30
21	1000	2.550	2.648	50	132.40
22	1050	3.944	3.247	50	162.35
23	1100	6.493	5.218	50	260.90
24	1150	5.769	6.131	50	306.55
25	1200	5.439	5.604	50	280.20
26	1250	4.908	5.173	50	258.65
27	1300	2.760	3.834	50	191.70
28	1350	2.850	2.805	50	140.25
29	1400	4.111	3.480	50	174.00
30	1450	3.869	3.970	50	199.50

Continuation Avg c/s = 4991.55

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Sl. No	chainage	C/S Area	mean C/S Area	Dist	Volume
	(m)	(m ²)	(m ²)	(m)	(m ³)
			Aty BIF =		4991.55 m
31.	1500	4.172	4.020	50	201.10
32.	1550	4.064	4.118	50	205.90
33.	1600	3.989	4.026	50	201.30
34.	1650	4.220	4.104	50	205.20
35.	1695	4.244	4.232	45	190.44
Total Earthwork aty =					5995.39 m
including crust =					
Less for C.S.B () =					481.60 m ³
Less for W.B.M - 3C =					485.91 m ³
" " P.C.C () =					620.20 m ³
" " M.S.S. () =					52.02 m ³
Net Qty of E/W =					4355.66 m ³
Less for Subgrade & earth shoulder ()					928.20 m ³
Net Qty of E/W in embankment =					3427.46 m ³
Previous Paid Qty =					2042.10 m ³
Qty to be Paid =					1385.36 m ³
(a) (a) 1000 m lead =					554.14 m ³
(b) (a) 100 m lead =					231.21 m ³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(5) construction of granules					
sub-base by providing					
coarse graded material					
For B.T. portion -					
9m box culvert -					
2x 10x30.00m x 0.525m x 0.10m =					31.50m ³
2x 10x30.00m x 0.525m x 0.10m =					31.50m ³
2x 2x30.00m x 0.525m x 0.10m =					6.30m ³
2x 1x20.00m x 0.525m x 0.10m =					2.10m ³
9m full width					
1x 10x30.00m x 4.050m x 0.10m =					121.50m ³
					121.50m³
					121.50m ³
1x 10x30.00m x 4.050m x 0.10m =					121.50m ³
1x 2x30.00m x 4.050m x 0.10m =					24.30m ³
1x 1x20.00m x 4.050m x 0.10m =					8.10m ³
For profile correction -					
6x 4.80m x 3.050m x 0.10m =					8.78m ³
4x 3.50m x 2.00m x 0.10m =					2.80m ³
5x 4.20m x 3.050m x 0.10m =					6.40m ³
4x 3.35m x 2.10m x 0.10m =					2.81m ³
Extending at H-level					
4x 6.00m x 0.550m x 0.10m =					1.32m ³
2x 5.80m x 0.60m x 0.10m =					0.69m ³
2x 5.50m x 0.500m x 0.10m =					0.55m ³
4x 6.00m x 0.580m x 0.10m =					1.39m ³
2x 3.50m x 2.80m x 0.10m =					1.96m ³
					Total = 373.50m ³

Continuation

Particulars	Details of actual measurement				Contents of area-
	No.	L.	B.	D.	
⑥	Plv, leveling, spreading & Compacting of WBM-3				
1x	10x30.00m	3.75m	0.075m	= 84.37m ³	
1x	10x30.00m	3.75m	0.075m	= 84.37m ³	
1x	2x30.00m	3.75m	0.075m	= 16.87m ³	
1x	1x20.00m	3.75m	0.075m	= 5.62m ³	
Extra widening at H-curve					
4x	6.00m	0.550m	0.075m	= 0.99m ³	
2x	5.80m	0.60m	0.075m	= 0.52m ³	
2x	5.50m	0.500m	0.075m	= 0.41m ³	
4x	6.00m	0.580m	0.075m	= 1.04m ³	
2x	3.50m	2.80m	0.075m	= 1.47m ³	
Total =					195.66m ³

Qty limit = 195.08 m³

⑦	Plv and applying Polymer Coat with bitumen emulsion SS-1.				
	1x	10x30.00m	3.75m		$= 1125.00m^2$
	1x	10x30.00m	3.75m		$= 1125.00m^2$
	1x	2x30.00m	3.75m		$= 225.00m^2$
	1x	1x20.00m	3.75m		$= 75.00m^2$
Extra widening at H-curve.					
	4x	6.00m	0.550m		$= 13.20m^2$
	2x	5.80m	0.600m		$= 6.96m^2$
	2x	5.50m	0.500m		$= 5.50m^2$
	4x	6.00m	0.580m		$= 13.92m^2$
	2x	3.50m	2.80m		$= 19.60m^2$

Total = 2609.18 m²Continuation
Qty limit = 2601.00 m²

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(8) P/V & applying tank Coal - with binder emulsion RS-1 Net Qty = As per Qty of Primer coal = 2601.60 m ²					
(9) P/V, Laying and rolling of close graded Primer Surfacing material of 20 mm thickness. Net Qty = As per Qty of tank Coal = 2601.60 m ²					
(10) Construction of granular sub-base by providing coarse graded material. 2 x 10 x 30 mm on box cutting - 2 x 10 x 30.00 m x 0.375 m x 0.10 m = 22.50 m ³ 2 x 4 x 30.00 m x 0.375 m x 0.10 m = 9.00 m ³ 2 x 1 x 25.00 m x 0.375 m x 0.10 m = 1.87 m ³ Extra for profile correction 4 x 5.20 m x 2.80 m x 0.10 m = 5.82 m ³ 6 x 4.50 m x 2.40 m x 0.10 m = 6.48 m ³ 2 x 3.75 m x 2.50 m x 0.10 m = 1.87 m ³ Qty c/o = 47.54 m ³					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			Qty	BIF	$47.54 m^3$
Extra width at H-curve					
2x	6.60m	x 0.550m	x 0.10m		$= 0.66 m^2$
4x	5.50m	x 0.60m	x 0.10m		$= 1.32 m^2$
2x	2.50m	x 2.00m	x 0.10m		$= 1.00 m^2$
2x	5.60m	x 0.550m	x 0.10m		$= 0.55 m^2$
			Total		$= 51.07 m^3$

(11) P.V., Lining, spreading & compaction of WBM-3					
1x	10x30.00m	x 3.75m	x 0.075m		$= 84.375$
1x	4x30.00m	x 3.75m	x 0.075m		$= 33.75 m$
1x	1x25.00m	x 3.75m	x 0.075m		$= 7.03 m$

Extra width at H-curve					
2x	6.60m	x 0.550m	x 0.075m		$= 0.49 m^2$
4x	5.50m	x 0.60m	x 0.075m		$= 0.99 m^2$
2x	2.50m	x 2.00m	x 0.075m		$= 0.75 m^2$
2x	5.60m	x 0.550m	x 0.10m		$= 0.55 m^2$
			Total		$= 127.93 m^2$

(12) Construction of un-reinforced plain cement concrete kerb as per technical specification					
1x	10x30.00m	x 3.75m	x 0.160m		$= 180.00 m^2$
1x	4x30.00m	x 3.75m	x 0.160m		$= 72.00 m^2$
1x	1x25.00m	x 3.75m	x 0.160m		$= 15.00 m^2$
Extra width at H-curve					
2x	6.60m	x 0.550m	x 0.160m		$= 1.05 m^2$
4x	5.50m	x 0.60m	x 0.160m		$= 2.11 m^2$
			Qty	CD	$= 270.16 m^2$

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			Qty B/F =		270.16 m ²
2 x 2.50 m x 2.00 m x 0.160 m					1.60 m ³
2 x 5.00 m x 0.550 m x 0.160 m					0.88 m ³
			Total =		272.64 m ³
(13) Construction of subgrade					
8 earth shoulder with					
approved material with a					
lead up to 1000 m & 100 m.					
For B.T. Portion,					
Sides of G.S.B,					
2 x 10 x 30.00 m x 1.40 m x 0.200 m					168.00 m ²
2 x 10 x 30.00 m x 1.40 m x 0.200 m					168.00 m ²

2 x 2 x 30.00 m x 1.40 m x 0.200 m					33.60 m ²
2 x 1 x 20.00 m x 1.40 m x 0.200 m					11.20 m ²
Sides of W.B.M —					
2 x 10 x 30.00 m x 1.20 m x 0.075 m					54.00 m ²
2 x 10 x 30.00 m x 1.20 m x 0.075 m					54.00 m ²
2 x 2 x 30.00 m x 1.20 m x 0.075 m					10.80 m ²
2 x 1 x 20.00 m x 1.20 m x 0.075 m					3.60 m ²
For P.C.C. Portion,					
Sides of G.S.B,					
2 x 10 x 30.00 m x 0.625 m x 0.100 m					37.50 m ²
2 x 10 x 30.00 m x 0.625 m x 0.100 m					37.50 m ²
2 x 10 x 30.00 m x 0.625 m x 0.100 m					37.50 m ²
2 x 3 x 30.00 m x 0.625 m x 0.100 m					11.25 m ²
2 x 1 x 25.00 m x 0.625 m x 0.100 m					3.12 m ²

Qty of D = 630.07 m³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				Qty B/F =	630.07 m ²
Sides of WBM -					
2x 10x30.00m x 0.625m x 0.075m =					28.125 m ²
2x 10x30.00m x 0.625m x 0.075m =					28.125 m ²
2x 10x30.00m x 0.625m x 0.075m =					28.125 m ²
2x 3x30.00m x 0.625m x 0.075m =					8.4375 m ²
2x 1x25.00m x 0.625m x 0.075m =					2.34375 m ²
Sides of P.C.C.					
2x 10x30.00m x 0.625m x 0.160m =					60.00 m ²
2x 10x30.00m x 0.625m x 0.160m =					60.00 m ²
2x 10x30.00m x 0.625m x 0.160m =					60.00 m ²
2x 3x30.00m x 0.625m x 0.160m =					18.00 m ²
2x 1x25.00m x 0.625m x 0.160m =					5.00 m ²
				Total =	928.20 m ²
(14) Laying brick soling layer on prepared sub-grade with brick on end edging					
2x 10x30.00m x 0.250m =					150.00 m ²
2x 10x30.00m x 0.250m =					150.00 m ²
2x 10x30.00m x 0.250m =					150.00 m ²
2x 3x30.00m x 0.250m =					45.00 m ²
2x 1x25.00m x 0.250m =					12.50 m ²
				Total =	507.50 m ²
(15) Plastering of R.C.C. m/s grade kilometer stones =					0.3 Nos

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(16) Plv & fixing of R.C.C misgrade 200 m Stones = 06 NOS.					
(17) Plv & fixing of R.C.C misgrade boundary in km. At H.P. culvert - 2x4x4 = 32 NOS At Curve, 4x4x3 = 48 NOS Total = 80 NOS.					
(18) Plv & fixing of Retro-reflective traffic sign board 600mm Circula = 12 NOS					
(19) 900mm equilateral triangle (Left/Right arrow) = 06 NOS.					
(20) 600mmx450mm rectangle (School & place) = 06 NOS					
(21) Plv & laying of hot-applied thermoplastic compound 2.5mm thick For B.T. portion 2x10x30.004x0.1004 = 60.004 2x10x30.004x0.1004 = 60.004 Total = 120.004					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				Qty B/F	120.00 m ²
2x 2 x 30.00 m x 0.10 m					12.00 m ²
2x 1 x 20.00 m x 0.10 m					4.00 m ²
				Total =	136.00 m ²
(22) Plv & darning of hole applied thermoplastic compound 2.5mm thick.					
For P.C.C. portion.					
2x 10 x 30.00 m x 0.10 m					60.00 m ²
2x 10 x 30.00 m x 0.10 m					60.00 m ²
2x 10 x 30.00 m x 0.10 m					60.00 m ²
2x 3 x 30.00 m x 0.10 m					18.00 m ²
2x 1 x 25.00 m x 0.10 m					5.00 m ²
				Total =	203.00 m ²
(23) Plv & darning of R.C. pipe duct 300 mm dia across the road -					
6x3x2.50 m = 45.00 m.					
(24) Plv & erecting of direction & place identification sign board = 01 NO					
(25) Plv & fixing of typical masonry retaining sign board with logo = 04 NO					

Continuation

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(26) Painting of Parapet walls of C/D works. H.P. culvert - 02 Nos (1x600m)					
Outer side -					
$2 \times 2 \times 3.60\text{m} \times 1.20\text{m}$					= 17.28 m ²
Inner side,					
$2 \times 2 \times 3.60\text{m} \times 0.60\text{m}$					= 8.64 m ²
Tops, $2 \times 2 \times 3.60\text{m} \times 0.40\text{m}$					= 5.76 m ²
Ends, $2 \times 2 \times 2 \times 0.40\text{m} \times 0.60\text{m}$					= 1.92 m ²
Total					23.60 m ²
Mmm					
25/11/24					
(J.E)					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Abstract of cost -					
1. Plv & fixing of working bench mark pillars.					
02 Nos, vide TMBP-7					
(1) Rs 8788 = 38 / No. Rs 7567 = 00					
2. Plv & fixing of reference pillars.					
04 Nos, vide TMBP-7					
03 Nos, vide TMBP-13					
07 Nos					
(1) Rs 1736 = 76 / No. Rs 12,157 = 00					
3. clearing & grubbing of road land.					
0.602 Hect, vide TMBP-7					
0.477 Hect, vide TMBP-13					
1.079 Hect					
(1) Rs 49174 = 86 / Hect. Rs 53,060 = 00					
4. Box cutting - excavation for roadway in soil using manual means					
42.75 m ³ , vide TMBP-7					
104.77 m ³ , vide TMBP-14					
147.52 m ³					
(1) Rs 75 = 43 / m ³ — Rs 11,127 = 00					
40 Rs 83,911 = 00					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				BF, B	83,911=60
5(a)					
5					Construction of embankment with a lead upto 1000 m.
					816.84 m ³ , vide TMBP-7
					554.14 m ³ , vide TMBP-16
					1370.98 m ³
					② B 179=38/m ² —B 2,45,926=0
5(b)					
6					Construction of embankment with a lead upto 100 m.
					1225.26 m ³ , vide TMBP-8
					831.21 m ³ , vide TMBP-16
					2056.47 m ³
					② B 150=70/m ² —B 3,09,910=0
6					Construction of granular sub-base by periodically coarse graded material.
B=					
					61.23 m ³ , vide TMBP-8
					51.07 m ³ , vide TMBP-20
					112.30 m ³
					Qty limit = 108,10 m ³
					② B 274=21/m ² —B 2,93,406=0
					c/o B 9,33,153=0

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			B.F.	Rs	9,133,153 = 6
$\frac{7}{14}$	Plv,	Leaving, spreading			
	8 Compacting of WBM-3				
	162.90 m ³	vide TMBP-8			
	1.27.93 m ³	vide TMBP-20			
	290.83 m ³				
	① Rs 3955 = 27/112 B				11,50,311 = 1
$\frac{8}{15}$	Construction of Un-				
	-reinforced plain curb				
	Concrete Pavement				
	as per technical				
	specification				
	347.56 m ³	vide TMBP-8			
	272.64 m ³	vide TMBP-24			
	620.20 m ³				
	① Rs 7754203/m ³ - Rs				48,09,049
$\frac{9}{27}$	Plv &	Siding of typical			
	MMSY interlocking				
	sign board with logo.				
	02 Nos,	vide TMBP-7			
	04 Nos,	vide TMBP-24			
	06 Nos,				
	① Rs 9916 = 67/110 - Rs				59,500 = 6
			c/c	Rs	69,52,013
					G

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			B/F	Rs	69,52,013=0
$\frac{10}{28}$	Earthwork in excavation for foundation of structure (H.P. cut off)				
31.32	m ³ , vide TMBP-9				
	(1) Rs 258=89/m ³ -Rs				8,108=0
$\frac{11}{29}$	Plv p.c.c MIS(1:2:5) as levelling course in foundation				
5.69	m ³ , vide TMBP-9				
	(2) Rs 5373=77/m ³ -Rs				30,577=2
$\frac{12}{30}$	Brick masonry work in C.M(1:4) in head wall				
27.732	m ³ , vide TMBP-9				
	(1) Rs 5847=0/m ³ -Rs				1,62,149=0
$\frac{13}{31}$	Plv & laying R.C.C pipe NP3 of dia 600mm				
15.00	m, vide TMBP-9				
	(2) Rs 4113=25/m-Rs				61,675=0
$\frac{14}{32}$	Plastering with cement (1:4) on brickwork				
62.54	m ² , vide TMBP-10				
	(1) Rs 156=61/m ² -Rs				9794=0

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				B/F P	224,340.00
15 23	PIV	1.5 mm	Coat -		
			side	TMBP-10	
				@ Rs 48.52/m ² - P	885.00
16 8	Construction of granule sub-base by providing coarse graded material.				
				373.50 m ² side TMBP-17	
				@ Rs 2714.24/m ³ - P	10,13,757.00
17 9	AV, Laying, Spacing & Compacting of WBM-3				
				195.08 m ³ side TMBP-18	
				@ Rs 3955.27/m ³ - P	7,71,584.00
18 10	PIV & applying Prime coat with bitumen emulsion SS-1.				
				2601.00 m ² side TMBP-18	
				@ Rs 48.82/m ² - P	1,26,981.00
19 11	PIV & applying tack coat with bitumen emulsion RS-1				
				2601.00 m ² side TMBP-19	
				@ Rs 16.32/m ² - P	42,448.00
				e/o	Rs 91,80,005.00 = 00

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				BIF	Rs 9,80,005
$\frac{20}{12}$ Plv, 1 curvy & rolling of close-graded porous surfacing material					
2601.00 2601.00 m ² , vide TMBP-19					
ma	(1) Rs	245=01/m ²			Rs 6,37,225
$\frac{21}{7}$ Construction of sub-grade & earthen shoulder with approved material					
928.20 m ³ , vide TMBP-22					
	(1) Rs	222=54/m ²			Rs 2,06,562
$\frac{22}{16}$ Laying brick solid layers on prepared sub-grade with brick on end edging					
507.50 m ² , vide TMBP-22					
	(1) Rs	477=27/m ²			Rs 2,42,245
$\frac{23}{17}$ Plv & rolling of R.C.C. m/s grade kilometer stones					
03 Nos, vide TMBP-22					
	(1) Rs	2257=53/No			Rs 67,73=0
				eto	Rs 1,02,72,804
					=00

Continuation

Continuation

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				BIF, B	1,08,29,771 = 00
32 36				plv & erecting direction & place identificational sign 100	
01 NO.				vide TMBP-24	
				@ Rs. 3415 = 66 / NO - B	3416 = 00
33 34.				painting two coats on new surface	
33.60 m ²				vide TMBP-25	
				@ Rs. 108 = 50 / m ² - B	3646200
				Total, B	1,08,36,833 =

				Less 10% (belong) - B	10,83,683 =
				Rs	97,53,150 =
				Less previous payment - B	6,76,683 =
				Net payable amount, Rs	90,76,467 =
				(Rupees Ninety Lakh, seventy six thousand, four hundred & sixty seven) only.	
				mm	
				25/11/24	30/11/24
				(J.E)	R.R

Continuation