

Measurement Book

Schedule XLV-Form No. 134

43 / 503D / 2019-20

DIVISION

SUB-DIVISION

MTNL SV MEEL S.C

Pr.B.No-3218

Pr.B.No-3218

3rd & Final bill

16

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
N/W:-					
Construction of road					
3 C/D works from NH-101					
Bhole Brahmansthan to					
Kali Sthanholi huge					
Mangolepur chowk tak					
Under masonry (sc) at					
block Jalalpur.					
N/Agency - Dipu Construction					
Ass. NO - 43/SRD/2019-20					
Date of start - 15.10.2019					
Date of completion - 14.10.2020					
Date of measurement - 25.03.2022					

Items of work-					
①	Box cutting - 50				
Earth work Calculation-					
Sl. NO	chainage	C/S area	mean C/S area	Dist	Volume
	(m)	(m ²)	(m ²)	(m)	(m ³)
1	0	2.067	1.033	0	0.00
2	50	2.144	2.105	50	105.25 m ³
3	100	2.132	2.138	50	106.90 m ³
4	150	2.965	2.548	50	127.40
5	200	2.975	2.970	50	148.50
6	250	2.990	2.982	50	149.10
7	300	2.945	2.967	50	148.35
8	350	2.978	2.961	50	148.05
9	400	2.965	2.971	50	148.55
Qty 40 = 1082.1043					

Continuation

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
St No drainage	C/S Area	Mean C/S Area	Dist		Volume
	(m)	(m ²)	(m ²)	(m)	(m ³)
			Qty	B/F	1082.10 m ³
10	450	2.948	2.956	50	147.80
11	500	2.915	2.931	50	146.55
12	550	2.965	2.940	50	147.00
13	600	2.785	2.875	50	143.75
14	650	2.415	2.600	50	130.00
15	700	1.885	2.150	50	107.50
16	750	2.601	2.243	50	112.15
17	800	2.126	2.363	50	118.15
18	850	2.337	2.231	50	111.55
19	900	2.008	2.172	50	108.60
20	950	2.169	2.888	50	104.40
21	1000	2.099	2.134	50	106.70
22	1050	2.425	2.262	50	113.10
23	1085	1.991	2.208	35	77.28
			Total		= 2756.63 m ³
	Less for C/S B-2				= (-) 436.09 m ³
	" " W.B.M-3				= (-) 308.12 m ³
	" " P.C.C				= (-) 214.20 m ³
	" " M.S.S				= (-) 55.67 m ³
	" " Hard shoulder				= (-) 21.88 m ³
					Net Qty of E/W = 1720.67 m ³
	Less Subgrade & earth on shoulder				= (-) 640.83 m ³
					Net Qty of E/W in embankment = 1079.84 m ³
(i)	① 1000 m lead = 269.96 m ³				
	Less paid Qty = 6256.72 m ³				
	Continuation				
	Net payable Qty = 13.24 m ³				
(ii)	② 100 m lead = 809.88 m ³				
	Less paid Qty = 794.23 m ³				
	Net payable Qty = 55.65 m ³				

Particulars	Details of actual measurement				Contents of area-
	No.	L.	B.	D.	
(2) Box cutting - Excavation for roading in soil using manual means.					
for R.T. portion					
	2	5	30.00	0.525	15.75 m^3
	2	1	10.00	0.525	1.05 m^3
				Total =	16.80 m^3
(3) Construction of granular sub base by bringing ^{loose} best graded material.					
in box cutting					
	2	5	30.00	0.525	15.75 m^3
	2	1	10.00	0.525	1.05 m^3
in full width					
	1	5	30.00	4.050	60.75 m^3
	1	1	10.00	4.050	4.05 m^3
for profile correction					
	6	3.60	2.45	0.100	5.29 m^3
Extra width on H-curve					
	4	5.80	0.550	0.100	1.27 m^3
				Total =	88.16 m^3
(4) Plv, levelling, spreading & Compacting of WBM-2					
for R.T. portion					
	1	5	30.00	3.75	42.18 m^3
	1	5	30.00	3.75	42.18 m^3
	1	5	30.00	3.75	42.18 m^3

Qty c/o = 126.54 m^3

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				Qty BIP =	126.54 m ³
1x	5x30.00m	x	3.75m	x	0.075m = 42.18m ³
1x	4x30.00m	x	3.75m	x	0.075m = 33.75m ³
1x	1x15.00m	x	3.75m	x	0.075m = 4.24m ³
Extra widening at H-curve					
4x	6.00m	x	0.550m	x	0.075m = 0.99m ³
3x	5.80m	x	0.60m	x	0.075m = 0.78m ³
4x	5.80m	x	0.550m	x	0.075m = 0.95m ³
				Total =	209.40m ³
				Qty Limit =	208.79m
(5) P.V. Laying spreading & compacting of					

(5) P.V. & applying Primer					
Coat with bitumen emulsion					
SS-1					
1x	5x30.00m	x	3.75m	=	562.50m ²
1x	5x30.00m	x	3.75m	=	562.50m ²
1x	5x30.00m	x	3.75m	=	562.50m ²
1x	5x30.00m	x	3.75m	=	562.50m ²
1x	4x30.00m	x	3.75m	=	450.00m ²
1x	1x15.00m	x	3.75m	=	56.25m ²
Extra widening at H-curve					
4x	6.00m	x	0.550m	=	13.20m ²
3x	5.80m	x	0.60m	=	10.44m ²
4x	5.80m	x	0.550m	=	12.76m ²
				Total =	2792.65m ²
				Qty Limit =	2783.81m ²

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
⑥ P.V. & applying tack coat with bitumen emulsion RS-1					
Net Qty & Qty As per Primer Coat					
					$= 2783.81 \text{ m}^2$
⑦ P.V. Laying and rolling of close-graded fine surface material of 20 mm thickness.					
Net Qty & Qty As per tack Coat					
					$= 2783.81 \text{ m}^2$

⑧ Construction of subgrade & earthen shoulder					
For B.T. portion					
Earthen shoulder					
Sides of CSB					
2 x 10 x 30.60 m x 1.250 m x 0.200 m = 50.40 m ³					
2 x 10 x 30.60 m x 1.250 m x 0.200 m = 50.40 m ³					
2 x 4 x 30.60 m x 1.250 m x 0.200 m = 60.80 m ³					
2 x 1 x 15.30 m x 1.250 m x 0.200 m = 7.50 m ³					
Sides of WBM-3					
2 x 10 x 30.60 m x 1.150 m x 0.075 m = 57.75 m ³					
2 x 10 x 30.60 m x 1.150 m x 0.075 m = 57.75 m ³					
2 x 4 x 30.60 m x 1.150 m x 0.075 m = 20.70 m ³					
2 x 1 x 15.30 m x 1.150 m x 0.075 m = 2.58 m ³					

Qty C/O = 494.28 m³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			Qty B/P		494.28 m ²
For P.C.C. bedding					
Earth shoulder					
Sides of C.S.B. -					
2 x 5 x 30.00 m x 0.625 m x 0.10 m					18.75 m ²
2 x 5 x 30.00 m x 0.625 m x 0.10 m					18.75 m ²
2 x 1 x 30.00 m x 0.625 m x 0.10 m					3.75 m ²
2 x 1 x 20.00 m x 0.625 m x 0.10 m					2.50 m ²
Sides of W.B.M-3					
2 x 5 x 30.00 m x 0.625 m x 0.075 m					14.06 m ²
2 x 5 x 30.00 m x 0.625 m x 0.075 m					14.06 m ²
2 x 1 x 30.00 m x 0.625 m x 0.075 m					2.81 m ²
2 x 1 x 20.00 m x 0.625 m x 0.075 m					1.87 m ²
Sides of P.C.C.					
2 x 5 x 30.00 m x 0.625 m x 0.160 m					30.00 m ²
2 x 5 x 30.00 m x 0.625 m x 0.160 m					30.00 m ²
2 x 1 x 30.00 m x 0.625 m x 0.160 m					6.00 m ²
2 x 1 x 20.00 m x 0.625 m x 0.160 m					4.00 m ²
					Total = 640.83 m ²
⑨ Laying brick, solid layer on prepared sub-grade					
2 x 10 x 30.00 m x 0.250 m					150.00 m ²
2 x 1 x 30.00 m x 0.250 m					15.00 m ²
2 x 1 x 20.00 m x 0.250 m					10.00 m ²
					Total = 175.00 m ²

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(10) P.V. & fixing of R.C.C. M15 grade kilometer stones = 02 Nos					
(11) P.V. & fixing of 200mm stones = 04 Nos					
(12) P.V. & fixing of R.C.C. M15 grade boundary pillars 4 x 5 x 4 Nos = 80 Nos					
(13) P.V. & fixing of Retro-reflective traffic signs 600mm circular = 08 Nos					
(14) P.V. & fixing of 900mm equilateral & triangle (L/R lane) = 04 Nos					
(15) 600mm x 400mm rectangles (school & place) = 04 Nos					
(16) P.V. & laying of hot applied thermoplastic compound 2.5mm thick on B.T. section					
$2 \times 10 \times 30.00m \times 0.10m = 60.00m^2$					
$2 \times 10 \times 30.00m \times 0.10m = 60.00m^2$					
$2 \times 4 \times 30.00m \times 0.10m = 24.00m^2$					
$2 \times 1 \times 15.00m \times 0.10m = 3.00m^2$					
Total = 147.00m ²					

Continuation

Sch. XLV-Form No. 134

33

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Abstract of cost					
$\frac{1}{12}$ Pl & fixing of working benchmark pillars					
02 No. vide TMBP-11					
(a) Rs 3787=98/MO-Rs					3788=0
$\frac{2}{12}$ Pl & fixing of reference pillars					
04 Nos. vide TMBP-11					
(a) Rs 1739=14/MO-Rs					6957=0
$\frac{3}{12}$ clearing & grubbing of road level					
0.651 Hect. vide TMBP-11					
(a) Rs 49174=86/Hect-Rs					32,013=0
$\frac{4}{12}$ Box cutting excavation for roadwork in soil using manual men					
86.62 m ³ , vide TMBP-11					
16.80 m ³ , vide TMBP-11					
103.42 m ³					
(a) Rs 75=43/m ³ -Rs					7,801=0
$\frac{5(1)}{12}$ construction of embankment with a lead upto 1000 m.					
256.72 m ³ , vide TMBP-11					
13.24 m ³ , vide TMBP-11					
269.96 m ³					
(a) Rs 179=38/m ³ -Rs					48,425=0

Continuation 90 Rs 98,984=0

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				B/F	98,984=60
5011/8					Construction of embankment with a lead upto 100 m.
					754.23 m ³ vide TMBP-12
					55.65 m ³ vide TMBP-17
					809.88 m ³
					① Rs 150=70/m ³ - Rs 1,22,049=60
6/10					Construction of granule sub-base by providing coarse graded material
					312.75 m ³ vide TMBP-12
					88.16 m ³ vide TMBP-18
					400.91 m ³
					② Rs 2728=51/m ³ - Rs 10,93,887=60
7/15					Construction of granule sub-base by providing coarse graded material
					35.18 m ³ vide TMBP-12
					③ Rs 2728=51/m ³ - Rs 95,989=60
8/16					P.V. Lining, specially & Compacting of WBP-7
					99.33 m ³ vide TMBP-12
					④ Rs 3972=55/m ³ - Rs 3,94,593=60
					9/16, Rs 18,05,502=60

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				61 F Rs	18,05,50200
9/29				plv & lining of typical	
				manhole perforating	
				Sign hole with log.	
02 Nos				vide TMBR-13	
04 Nos				vide TMBR-23	
06 Nos					
				① Rs 9910255/Hor-B	59,52320
10/17				Continuation of un-	
				reinforced plain cul	
				Concrete pavement	
				as per technical	
				Specification	
				214.20 m ² , vide TMBR-13	
				① Rs 7770212/m ² -B	16,64,36000
11/11				plv, leveling, spreading	
				& compaction of WBM-2	
				208.79 m ² , vide TMBR-19	
				① Rs 397255/m ² -B	8,29,42900
12/12				plv & applying prime	
				coat with bitumen	
				emulsion SS-1	
				2783.81 m ² , vide TMBR-19	
				① Rs 48832/m ² -B	1,35,90600
				C/O Rs	44,94,72000

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				BIP, B	44,94,720 ⁰⁰
<u>13</u> <u>17</u>				P/V & applying tack coat with bitumen emulsion (B-1)	
				2783.81 m ² , vide TMD-20	
				@ Rs 16.32/m ² — B	45,4320 ⁰⁰
<u>14</u> <u>17</u>				P/V, levelling & rolling of close-graded porous surfacing material, of roughness	
				2783.81 m ² vide TMD-20	
				@ Rs 245.34/m ² — B	6,82,980 ⁰⁰
<u>15</u> <u>17</u>				Construction of Sub-grade & earthen shoulder with approved material	
				640.83 m ² , vide TMD-21	
				@ Rs 222.54/m ² — B	1,42,610 ⁰⁰
<u>16</u> <u>18</u>				Laying brick setting layer on prepared sub-grade	
				175.10 m ² , vide TMD-21	
				@ Rs 477.27/m ² — B	83,522 ⁰⁰
				C/O, B	54,49,264 ⁰⁰

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				BIF, PS	54,49,261 ² ₀₀
<u>17</u> <u>19</u>				plv & drying of Rcc	
				mis grade kilometre	
				stones	
				02 Nos, vide TMPL-22	
				(W) B 2261-67/MO-B	4523 ² ₀₀
<u>18</u> <u>20</u>				plv & drying of 200m	
				stones	
				04 Nos, vide TMPL-22	
				(W) B 641-49/MO-B	2566 ² ₀₀
<u>19</u> <u>21</u>				plv & drying of	
				Rcc mis grade	
				boundary pillar	
				80.00 Nos, vide TMPL-22	
				(W) B 513-96/MO-B	41,11,72 ² ₀₀
<u>20</u> <u>22</u>				plv & drying of Rcc	
				reflective traffic	
				sign post, 600mm	
				curb	
				08 Nos, vide TMPL-22	
				(W) B 5620-11/MO-B	44,961 ² ₀₀
<u>21</u> <u>23</u>				900 mm equivalent	
				& triangle (4 R.Cm)	
				04 Nos, vide TMPL-22	
				(W) B 6265-04/MO-B	25,060 ² ₀₀
				cto B 55,67,491 ² ₀₀	

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			816	15	55,67,491 =
$\frac{22}{24}$		600 mm x 150 mm			
		rectangular (Schauls place)			
	04 Nos.	vide TMBP-22			
		(10) Rs 5464 = 98/100 - B			21,860 =
$\frac{23}{25}$		plv & laying of			
		not applicd there			
		- plastic compound 2.5m			
		147.00 m ² vide TMBP-22			
		(10) Rs 924 = 59/100 - B			1,35,915 =
$\frac{24}{26}$		plv & laying of			
		not applicd there			
		- plastic compound			
		2.5 m thick			
		70.00 m ² vide TMBP-23			
		(10) Rs 1022 = 72/100 - B			71,940 =
$\frac{25}{27}$		plv & laying of R.C.C			
		pipe duct 300 mm			
		dig across the road			
		37.50 M, vide TMBP-27			
		(10) Rs 8852 = 86/100 - B			33,220 =
				40	Rs 58,30,426 =

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			BIF	Rs	58,30,426 ⁰⁰
26 26			plv & erecting of		
			diameter & plane		
			identification sign		
			band		
	01 No, vide mob 27				
			② Rs	3417=82/No-4	3418=00
			Total	Rs	58,33,844 ⁰⁰
			Less 10% belat	Rs	5,83,384 ⁰⁰
				Rs	52,50,460 ⁰⁰
			Less previous payment	Rs	29,13,415 ⁰⁰
			Net payable amount	Rs	23,37,045 ⁰⁰

(Rupees) Twenty-three
Lakh, thirty seven thousand
& forty five only.

M.M.
25/03/22
(J.R.)

Subscribed
26-03-22
A.K.

C.R.

24/1/22

Continuation