

1913 NO - 3232

५५ / ५०३८ / २०१९-२०

Measurement Book

Schedule XLV-Form No. 134

$\frac{29}{29} \rightarrow 27 \quad 25/9 \rightarrow 21$
 $27 - 25/9 \rightarrow 21$
 $27 - 25/9 \rightarrow 21$
 $27 - 25/9 \rightarrow 21$

DIVISION

SUB-DIVISION

PA-13-MD-3232

4th & Final bill

ONAK Mill

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Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
N/W:- Construction of Road & CD Works from Kurnag Sadhpur Road to Anwar talu under mmssy (SC) at block Jalalpur.					
N/Agency - Sri Rajeev Kumar Singh.					
Ass. No - 45/SBD/2019-20					
Date of start - 06.08.2019					
Date of Completion - 05.08.2020					
Date of measurement - 10.12.2021					

Items of work

① clearing & grubbing of
road land,

$$2 \times 30.00 \text{ m} \times \frac{2.00 \text{ m}}{100} = 120.00 \text{ m}^2$$

$$= 0.012 \text{ Hect.}$$

② Box cutting -

For P.C.C. portion.

$$2 \times 30.00 \text{ m} \times 0.075 \text{ m} \times 0.10 \text{ m} = 0.45 \text{ m}^3$$

$$2 \times 30.00 \text{ m} \times 0.10 \text{ m} \times 0.10 \text{ m} = 0.60 \text{ m}^3$$

$$\text{Total} = 1.05 \text{ m}^3$$

③ Construction of granular sub-base
by providing coarse graded
material -

gn box cutting -

$$2 \times 30.00 \text{ m} \times 0.075 \text{ m} \times 0.10 \text{ m} = 0.45 \text{ m}^3$$

$$2 \times 30.00 \text{ m} \times 0.10 \text{ m} \times 0.10 \text{ m} = 0.60 \text{ m}^3$$

$$\text{Continuation Total} = 1.05 \text{ m}^3$$

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(4) Earthwork in embankment with material obtained from borrow pits with a lead up to 1000m & 100m.					
Earthwork Calculation					
Sl. No	Chainage	C/S Area	Mean C/S Area	Dist	Volume
	(m)	(m ²)	(m ²)	(m)	(m ³)
1	0	1.421	0.711	0	0.00
2	50	1.787	1.604	50	80.200
3	100	2.283	2.035	50	101.750
4	150	1.779	2.031	50	101.550
5	200	2.128	1.954	50	97.700
6	250	1.851	1.990	50	99.500
7	300	2.341	2.096	50	104.800
8	350	1.749	2.045	50	102.250
9	400	1.935	1.842	50	92.100
10	450	1.713	1.824	50	91.200
11	500	2.195	1.954	50	97.700
12	550	1.870	2.033	50	101.650
13	600	3.906	2.888	50	144.400
14	650	3.084	3.495	50	174.750
15	700	4.138	3.611	50	180.550
16	750	3.884	4.011	50	200.550
17	800	4.156	4.020	50	201.000
18	850	4.055	4.106	50	205.300

Continuation

Qty 40 F

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
8/140 chainage	c/s	m. cm	m. cm	Dist	volume
	(m)	(m)	(m)	(m)	(m ³)
			Qty	BTF =	
19	900	4.382	4.219	50	210.950
20	950	3.902	4.142	50	207.100
21	1000	3.965	3.934	50	196.700
22	1050	4.502	4.234	50	211.700
23	1100	3.952	4.227	50	211.350
24	1150	4.286	4.119	50	205.950
25	1200	4.670	4.478	50	223.900
26	1250	4.457	4.564	50	228.200
27	1300	4.332	4.395	50	219.750
28	1350	4.807	4.570	50	228.500
29	1400	5.204	5.006	50	250.300
30	1425	4.466	4.835	25	120.870
			Total =		4892.22 m ³
	Less for G.I.	5.8-1	(-)		473.39 m ³
	"	"	W.D.M-3	(-)	399.55 m ³
	"	"	P.C.C	(-)	354.39 m ³
	"	"	M.S.S	(-)	62.49 m ³
	Total qty of E/W =				3602.40 m ³
	Less qty of subgrade				768.61 m ³
	Net qty of E/W in embankment =				2833.79 m ³
	Already paid qty =				1846.36 m ³
	Balance qty to be paid =				987.43 m ³
	① 100m lead =				335.73 m ³
	② 100 m lead =				651.70 m ³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
⑤ H.V. Laying, spreading & compacting of W.B.M.					
For P.C.C. Pavement,					
1x 30.00m x 3.00m x 0.075m = 6.75m ³					
1x 30.00m x 3.15m x 0.075m = 7.08m ³					
1x 30.00m x 3.20m x 0.075m = 7.20m ³					
Total =					21.03m ³
⑥ Construction of unreinforced plain cement concrete pavement as per technical specification.					

1x 10x30.00m x 3.75m x 0.16m = 180.00m ³					
1x 6x30.00m x 3.75m x 0.16m = 108.00m ³					
1x 1x20.00m x 3.60m x 0.16m = 11.52m ³					
1x 1x5.00m x 3.00m x 0.16m = 2.40m ³					
1x 1x10.00m x 3.350m x 0.16m = 5.36m ³					
1x 1x25.00m x 3.00m x 0.16m = 12.00m ³					
1x 1x30.00m x 3.15m x 0.16m = 15.12m ³					
1x 1x30.00m x 3.20m x 0.16m = 15.36m ³					
Enter width of H-curve,					
2x 5.50m x 0.450m x 0.16m = 0.79m ³					
2x 5.00m x 0.500m x 0.16m = 0.80m ³					
2x 2.50m x 3.80m x 0.16m = 3.04m ³					
Total =					354.39m ³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(7) Plv & applying Primer coat -					
with bitumen emulsion SS-1					
1x	10x30.00m	x	3.75m	=	1125.00m ²
1x	7x30.00m	x	3.75m	=	787.50m ²
1x	1x	15.04m	x	3.75m	= 56.25m ²
1x	5x30.00m	x	3.75m	=	562.50m ²
1x	5x30.00m	x	3.75m	=	562.50m ²
Extra width at H-curve,					
2x	6.50m	x	0.580m	=	7.54m ²
2x	5.90m	x	0.600m	=	7.08m ²
3x	6.20m	x	0.550m	=	10.23m ²
2x	5.00m	x	0.550m	=	5.50m²
2x	5.00m	x	0.600m	=	6.00m ²
2x	5.80m	x	0.580m	=	6.72m ²
Total =					3131.32m ²
Qty limit =					3124.69m ²
(8) Plv & applying Tack coat					
with bitumen emulsion RS-1					
Net Qty = As per aty of					
Primer coat -					
=					3124.69m ²
(9) Plv, laying & rolling of					
close-graded loose					
surfacing material of					
20cm thickness					
Net Qty = As per tack coat aty					
=					3124.69m ²

Continuation

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(10) Construction of subgrade & earthen shoulder with a lead upto 100m & 100m.					
For B.T. Portion -					
Sides of G.S.B.					
2x 10x30.00m x 1.250m x 0.200m					150.00m ³
2x 7x30.00m x 1.250m x 0.200m					330.00m ³
Sides of W.B.M-3					
2x 1x15.00m x 1.250m x 0.200m					7.50m ³
2x 5x30.00m x 1.250m x 0.200m					75.00m ³
2x 5x30.00m x 1.250m x 0.200m					75.00m ³
Sides of W.B.M-3					
2x 10x30.00m x 1.100m x 0.075m					49.50m ³
2x 7x30.00m x 1.100m x 0.075m					34.65m ³
2x 1x15.00m x 1.100m x 0.075m					2.47m ³
2x 5x30.00m x 1.100m x 0.075m					24.75m ³
2x 5x30.00m x 1.100m x 0.075m					24.75m ³
For C.C. Portion.					
Sides of G.S.B.					
2x 10x30.00m x 0.625m x 0.100m					37.50m ³
2x 8x30.00m x 0.625m x 0.100m					30.00m ³
2x 2x30.00m x 0.625m x 0.100m					7.50m ³
Sides of W.B.M-3,					
2x 10x30.00m x 0.625m x 0.075m					28.12m ³
2x 8x30.00m x 0.625m x 0.075m					22.50m ³
2x 2x30.00m x 0.625m x 0.075m					5.62m ³
Sides of P.C.C.					
2x 10x30.00m x 0.625m x 0.160m					60.00m ³
2x 8x30.00m x 0.625m x 0.160m					48.00m ³
2x 2x30.00m x 0.625m x 0.160m					12.00m ³
Total 40					799.86m ³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			Qty B/F =		799.86m ²
			Total =		799.86m ²
			Less for B/solid =		631.25m ²
			Net Qty =		768.61m ²

(11) Laying Brick soling layer on prepared subgrade.					
2x	10x	20.00m	x	0.250m	= 150.00m ²
2x	6x	20.00m	x	0.250m	= 90.00m ²
2x	3x	20.00m	x	0.250m	= 10.00m ²

Total = 250.00m²

(12) P/V & fixing of R.C.C MIS grade kilometre stones = 02 NOS.					
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(13) P/V & fixing of 200mm stones = 06 NOS.					
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(14) P/V & fixing of Retro-reflective traffic sign board = 08 NOS					
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(15) P/V & fixing 900mm equilateral triangle (Left/Right-curve) traffic sign board = 04 NOS					
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Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(16) P/V & fixing 600 mm x 450 mm rectangular (schal & plate) to electric sign board = 04 Nos.					
(17) P/V & Lining of wall - applied thermoplastic compound 2.5 mm thick for B.T. portion -					
					$2 \times 10 \times 30.00 \text{ m} \times 0.10 \text{ m} = 60.00 \text{ m}^2$
					$2 \times 7 \times 30.00 \text{ m} \times 0.10 \text{ m} = 42.00 \text{ m}^2$
					$2 \times 1 \times 15.00 \text{ m} \times 0.10 \text{ m} = 3.00 \text{ m}^2$
					$2 \times 5 \times 30.00 \text{ m} \times 0.10 \text{ m} = 30.00 \text{ m}^2$
					$2 \times 5 \times 30.00 \text{ m} \times 0.10 \text{ m} = 30.00 \text{ m}^2$
					Total = 165.00 m ²
(18) P/V & Lining of wall - applied thermoplastic compound 2.5 mm thick for P.C.C. portion,					
					$2 \times 10 \times 30.00 \text{ m} \times 0.10 \text{ m} = 60.00 \text{ m}^2$
					$2 \times 6 \times 30.00 \text{ m} \times 0.10 \text{ m} = 36.00 \text{ m}^2$
					$2 \times 1 \times 20.00 \text{ m} \times 0.10 \text{ m} = 4.00 \text{ m}^2$
					Total = 100.00 m ²
(19) P/V & fixing of direction & place identification sign board = 01 NO.					

Continuation

Зем. кадастровый № 43

Scanned with CamScanner

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
<u>Abstract of cost</u>					
<u>1</u> PIV & fixing of working Benchmark pillars,					
01 No. vide TMBP-17					
(a) Rs 3792=58/100-Rs 3793=0					
<u>2</u> PIV & fixing of reference pillars,					
06 Nos. vide TMBP-17					
(u) Rs 1741252/100-Rs 10,449=0					
<u>3</u> clearing & grubbing of road land.					
0.847 Hect vide TMBP-17					
0.012 Hect vide TMBP-22					
0.859 Hect,					
(a) Rs 49174=86/Hect-Rs 42,241=0					
<u>4</u> Box cutting-Excavation for roadway in soil using manual means.					
124.87 m ³ vide TMBP-17					
1.05 m ³ vide TMBP-22					
125.92 m ³					
(a) Rs 75243/m ³ -Rs 9498=0					
C/O Rs 65,981=0					

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			B/E	As	65,981.60
5(i) 5	Construction of embankment with a lead up to 1000m.				
	625.46 m ³	vide TMBP-18			
	335.73 m ³	vide TMBP-24			
	961.19 m ³				
	① Rs 179=38/m ³ - Rs 1,72,418.50				
5(ii) 6	Construction of embankment with a lead up to 100m.				
	1220.90 m ³	vide TMBP-18			
	651.70 m ³	vide TMBP-24			
	1872.60 m ³				
	① Rs 150=70/m ³ - Rs 2,82,201.00				
6 8	Construction of granular sub base by partially coarse graded material				
	429.44 m ³	vide TMBP-18			
	① Rs 2742=81/m ³ - Rs 11,77,872.00				
7 9	Plv, Laying, spreading & compacting of WBM-2				
	234.35 m ³	vide TMBP-18			
	① Rs 3989=84/m ³ - Rs 9,35,911.00				
	Total Rs 26,33,491.00				

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			BIF	RS	26,33,491=cc
<u>8/13</u>	Construction of gravel sub-base by spreading coarse graded material.				
	42.90 m ³	vide TMBP-19			
	1.05 m ³	vide TMBP-22			
	43.95 m ³				
	① RS 2742=81/m ³ -RS				1,20,546=
<u>9/14</u>	Plv, laying, spreading & Compacting of WBM3				
	144.17 m ³	vide TMBP-19			
	21.03 m ³	vide TMBP-25			
	165.20 m ³				
	① RS 3989=84/m ³ -RS				6,59,121=cc
<u>10/22</u>	Plv & binding of typical mmhy intermediate sign board with top				
	02 Nos	vide TMBP-19			
	01 No	vide TMBP-30			
	03 Nos				
	① RS 9924=44/No-RS				29,773=cc
<u>11/15</u>	Construction of on-rein - form plain cement concrete panel after trenching				
	354.39 m ³	vide TMBP-25			
	① RS 7786=21/m ³ -RS				27,59,355=cc
	① RS 62,02,286=				

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				BIF, RS	62,02,786.26
<u>12</u> 10					
				Plv & applying	
				primer coat - with	
				bitumen emulsion SS-1	
				3124.69 m ² , vide TMBP-26	
				(@) RS 48=83/m ² - RS	1,52,579.00
<u>12</u> 11					
				Plv & applying tack	
				coat with bitumen	
				emulsion RS-1	
				3124.69 m ² , vide TMBP-26	
				(@) RS 16=33/m ² - RS	51,026.00
<u>13</u> 12					
				Plv, Laying &	
				rolling of close graded	
				premix surfacing	
				material	
				3124.69 m ² , vide TMBP-26	
				(@) RS 245=68/m ² - RS	7,67,674.00
<u>14</u> 7					
				Construction of sub-	
				grade & earthen	
				shoulder with	
				approved material	
				with a lead upto 100cm	
				& 100mm.	
				768.61 m ² , vide TMBP-28	
				(@) RS 222=54/m ² - RS	1,71,046.00
				10. RS 73,44,611.00	

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
15 16. Laying brick sand layer on prepared subgrade.				115.6	73,44,611 = a
250.00 m ² wide TMBP-28					
① Rs 477-271 m ² -B					1,19,317 = a
17 17. PIV & fixing of R.C.C. MIS grade, 1 kilometre stones.					
02 NOS, vide TMBP-28					
① Rs 2265-82/NO-B					4532 = a
18 18. PIV & fixing of 200m stones.					
06 NOS, vide TMBP-28					
① Rs 642-24/NO-B					3853 = a
19 19. PIV & fixing of Retro-reflective traffic sign board.					
08 NOS, vide TMBP-28					
① Rs 5622-06/NO-B					44,976 = a
20 20. PIV & fixing of 900mm equilateral triangle (Left / Right / cur)					
04 NOS, vide TMBP-28					
① Rs 6266-98/NO-B					25,068 = a
				40 B	75,42,357 = a

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			B/F		Rs 75,42,357 = C
21 22	Plv & Stry	600mm x			
	450 rectangular				
	(each & place)				
	500 bar				
04 Nos	vide TMBP-29				
	(a) Rs 5466 = 72/No - B				21,868 =
22 23	Plv & Lany of				
	half applied				
	thermoplastic				
	Compound 2.5 mm thick				
165.00 m ²	vide TMBP-29				
	(a) Rs 924 = 59/m ² - B				1,52,557 = C
22 24	Plv & Lany of half				
	applied thermoplastic				
	Compound 2.5 mm thick				
100.00 m ²	vide TMBP-29				
	(a) Rs 1027 = 72/m ² - B				1,02,772 = C
24 26	Plv & Stry of				
	Directions plane				
	identification sign				
	band				
01 No,	vide TMBP-29				
	(a) Rs 3419 = 98/No - B				3420 = C
			C/O		Rs 78,22,974 = C

Continuation

Continuation