Gaaniyaan Jaunpur.

Schedule XLV-Form No. 134

E.E, R.W.D, W. Div. Jaunpur DIVISION

A.E. R.W.D. Makhdumpur SUB-DIVISION

2679-

MEASUREMENT BOOK

Sch. XLV—Form No. 134

E.E, RWD W. Div. Jehanabad DIVISION

A.E. RWD, Makhdumpur SUB-DIVISION

Measurement Book

No. 2679

Name of Officer ______________________

____

Date of first entry ______________________

Date of last entry ______________________

Schedule PLV–Form No. 134

NOTES

REFERENCE TO P. W. A. CODE, CHPL VII Para 39 & 81

In recording detailed measurements, the following general instructions should be carefully observed :-

(a) Subject to such subsidiary orders as may be laid down by the local Government detailed measuements should be recorded only by Executive or Assistant Engineers or by Executive subordinates in-charges of work for whom measurement books have been supplied by the Executive Engineer for the purpose.

Executive Engineer
P. W. D. (W) Division
Ishanabad

(b) All measurements should be beal taken down in a measurement book Form 23, issued for the purpose, no where else.

(c) Each set of measurement should commende with entries tarting-

(i) In the case fo bills for work done :-

(a) Full name of work as given in estimate
(b) Situation of work (c) Name of contractor.
(d) Number and date of his agreement and
(e) Date of measurement
(i) "Stock", (ii) "Purchase" for direct issue to (here enter full name of work as given in estimate)

(ii) "Purchase" for (here enter full name of work as given in estimate) issued to contractor ..... on ..... and

(d) Date of measurements and should end with the Paid initials of the officer marking the measurement, see also paragraph 24, A suitable abstract should than be prepared which / should collect in the case of measurement for work done, the total quantities of each distinct item of work relating to each sanctioned sub-head.

(d) As all payments for work supplies are based on the quantities recorded in the measurement books it is incombent upon the person taking the measurement to record the quantities clearly and accurately. If the measurements are taken in connection with a running contract account on which work has been previously measured he is further responsible (1) that reference to the last set of measurements is recorded and (2) that if the entire job or contract has been completed the fact is recorded prominently just above his initials.

(e) Entries should be record continuously in the measurement book No blank pages may be left and no page be turn out. Any page left in advoltenly must be cancelled by diagonal nes. TI.e cancellation being attested. See also paragraph or the Public Work Department Code.

(f) No entry may be erased, of a mistake is made it shold be correct (and dated) by the responsible officer in the manner prescribed in paragraph 335 of the Public Works Department Code. When any measurements are cancelled, the cancellation, must be supported by the dated initials of the officer ordering the cancellatcn or by refrence to his orders initialled by the officer who made the measurements in either case the reason for cancellation should be provided with an index which should be kept up to date.

1st Don A/c Bill

Name fo 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 o
the measurements relating to each work.)

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Name of work :- Construction of road from Ganiyari Jamkpur to Vinta Chhatijana Rampur (Under MMGSY)					
Agency :- M/s Aditya Shree engicons Pvt. Ltd. 31, Shakti Niwas, West Gandhi. Maidan Jehanabad					
Agr. No :- 30 MBD/2020-21					
Date of Agreement - 09/12/2020					
Date of Completion - 08/12/2021					
Date of measurement - 16/07/2021					
① Providing & fixing of					
Working bench mark Pillars					
-do- -do-					
Working benchmark Pillars					
qty = 02 Nos.					
Referenced pillars					
qty = 07 Nos.					
② Clearing & grubbing of road land -do- -do-					
2 x 10 x 30.00 x 3.00					= 1800 m²
2 x 15 x 30.00 x 3.00					= 2700 m²
2 x 15 x 30.00 x 8.00					= 2700 m²
2 x 20 x 30.00 x 3.00					= 3600 m²
					= 10,800 m²
1 Hect. = 10800 / 10000					= 1.08 Hect

Continuation

Sch. XLV—Form No. 134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(3) Excavation for roadway in soil & for carrying of cut earth (by manual means)					
— do — do —					
Flexible road					
2 × 10 × 30.00 × 0.525 × 0.10					= 31.5 m³
2 × 15 × 30.00 × 0.525 × 0.10					= 47.25 m³
2 × 14 × 30.00 × 0.525 × 0.10					= 44.10 m³
					= 122.85 m³
Rigid Road					
2 × 10 × 30.00 × 0.375 × 0.10					= 22.5 m³
2 × 11 × 30.00 × 0.375 × 0.10					= 24.75 m³
					= 47.25 m³
Total qty = 170.10 m³					
(4) Construction of embankment with approved material deposited from roadway cutting					
— do — do —					
60 % of item no. (3) qty					
= 170.10 × 0.6 = 102.06 m³					
qty = 102.06 m³					
(5) E/W in excavation for foundation of structures — do — do —					
H.W.					
4 × 2 × 6.45 × 1.40 × 1.50					= 108.36 m³
Below dike					
4 × 1 × 4.85 × 1.53 × 0.365					= 10.832 m³
					= 119.192 m³

Continuation

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(6) Providing M15 (Pcc 1:2:5:5) as levelling Course in foundation					
— do — do —					
H.W.					
1 × 3 × 6.15 × 1 × 0.15					= 10.836 m³
Below pipe					
1 × 1 × 1.931 × 1.530 × 0.25					= 7.511 m³
less for pipe					
1 × 0.25 × 0.7857 × (0.23)² × 5.496					= (-) 6.532 m³
					= 11.815 m³
(7) Brick masonry work in CM (1:4) in inner wall — do — do —					
H.W					
1 × 2 × 6.15 × 0.825 × 2.58					= 104.724 m³
Parapet					
1 × 2 × 6.15 × 0.400 × 1.200					= 23.616 m³
less for pipe					
1 × 2 × 0.7857 × (1.28)² × 0.622					= (-) 5.912 m³
					= 122.428 m³
(8) Providing & laying RCC pipe NP3 for culverts on first class bedding — do — do —					
1 × 3 × 2.50					= 30.00 m
(9) Plastering with cement mortar (1:4) on brick work in Sub-Structure — do — do —					

Continuation

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Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
Outer Sides :-					
4 x 2 x 6.150 x 3.780					= 185.976 m²
Inner Sides :-					
4 x 2 x 6.150 x 0.600					= 29.52 m²
Top :-					
4 x 2 x 6.150 x 0.400					= 19.68 m²
Ends :-					
4 x 4 x 0.825 x 2.580					= 34.056 m²
Ends (Parapet) :-					
4 x 4 x 0.400 x 1.200					= 7.68 m²
Less :-					
4 x 2 x 0.7857 x (1.23)²					= 9.508 m²
					= 267.40 m²
(10) Providing 1:5 mm cement plastering including curing					
— do — do —					
Top :-					
4 x 2 x 6.150 x 0.400					= 19.68 m²
Ends Parapet :-					
4 x 4 x 0.400 x 1.200					= 7.68 m²
Inner Sides :-					
4 x 2 x 6.150 x 0.600					= 29.52 m²
					= 56.88 m²
(11) E/W in excavation for foundation					
of structure — do — — do —					
H.W.					

Continuation

2 x 8.100 x 1.400 x 1.500 = 34.02 m³

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Below pipe					
1	× 5.425	× 3.300	× 0.400		= 7.161 m³
					= 41.181 m³
(12) Providing M15 (Rec 1:2:4) as Overalling Course in foundation					
— do — do —					
H.W					
2	× 8.10	× 1.40	× 0.150		= 3.402 m³
Below pipe Level					
1	× 5.425	× 3.30	× 0.300		= 5.37 m³
					= 8.772 m³
✓ Less for pipe					
2	× 0.25	× 0.7854	× (1.23)²	× 5.496	= 13.266 m³
					5.504 m³
(13) Brick masonry work in CM (1:4) in Head wall — do — do —					
H.W					
2	× 7.95	× 0.825	× 2.58		= 33.843 m³
Parapet				1.20	7.632
2	× 7.95	× 0.400	× 0.600		= 3.816 m³
Less for pipe					
2	× 2 × 0.7854	× (1.23)²	× 0.622		= (-) 2.957 m³
					= 34.702 m³
					38.518 m³
(14) Providing & Laying RCC NP3 pipe of 1000 mm ϕ — do — do —					
Qty =	2	× 3	× 2.50		= 15.00 m

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Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(15) Plastering with Cement mortar (1:4) on brickwork					
— do —			do	—	
Outer Sides					
	2	× 7.95	× 3.78	= 60.102	m^2
Inner Sides					
	2	× 7.95	× 0.600	= 9.54	m^2
Ends					
	4	× 0.825	× 2.58	= 8.514	m^2
Ends (Parapet)					
	4	× 0.400	× 1.200	= 1.920	m^2
Less					
	2 × 2	× 0.7857	× $(1.23)^2$	= (-) 4.755	m^2
				= 81.681	m^2
(16) Providing 1:5 mm cement Punning including curing					
— do —			do	—	
Top					
	2	× 7.95	× 0.400	= 6.36	m^2
Ends (Parapet)					
	4	× 0.400	× 1.200	= 1.920	m^2
Inner Sides					
	2	× 7.95	× 0.600	= 9.54	m^2
				= 17.82	m^2
(17) Construction of embankment with material obtained from borrow pits					
— do —			do	—	

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Chainage	Area	← Mean Area →		Dist	Qty
(m)	(m^2)		(m^2)	(m)	(m^3)
0	0.366				
50	0.317	0.342		50	17.10
100	0.367	0.342		50	17.10
150	1.528	0.948		50	47.40
200	1.546	1.537		50	76.85
250	1.317	1.432		50	71.60
300	1.479	1.398		50	69.90
350	1.529	1.504		50	75.20
400	1.320	1.425		50	71.25
450	1.523	1.422		50	71.10
500	1.665	1.594		50	79.70
550	0.253	0.959		50	47.95
600	0.258	0.256		50	12.80
650	0.296	0.269		50	13.35
700	0.227	0.252		50	12.60
750	2.152	1.190		50	59.50
800	2.261	2.207		50	110.35
850	2.184	2.223		50	111.15
900	2.146	2.165		50	108.25
1000	0.537	1.426		50	71.30
1050	0.513	0.525		50	26.25
1100	0.394	0.457		50	22.70
1150	0.390	0.392		50	19.60
1200	0.429	0.410		50	20.50
1250	0.457	0.443		50	22.15
1300	0.461	0.459		50	22.95

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Chainage	Area	Mean	Area	Dist.	Qty
(m)	(m^2)	(m^2)		(m)	(m^3)
1350	0.659	0.580		50	28.00
1400	0.871	0.765		50	38.25
1450	0.668	0.740		50	37.00
1500	0.985	0.797		50	39.85
1550	0.634	0.810		50	40.50
1600	0.747	0.691		50	34.55
1650	0.609	0.678		50	33.90
1700	1.939	1.274		50	63.70
1750	1.829	1.884		50	94.20
1800	2.200	2.015		50	100.75
					= 1900.80 m^3

for 1000m lead
= 1900.80 × 26.09% /.
= 496.01 m^3

for 100 m lead
= 1900.80 × 73.90% /.
= 1404.77 m^3

(18) Construction of Sub-grade and earthen shoulder with approved material — do — do —

Earthen shoulder (Sides of GSB) on flexible road

2 × 10 × 30.00 × 1.45 × 0.200 = 178.8 m^3
2 × 15 × 30.00 × 1.49 × 0.200 = 268.2 m^3
2 × 14 × 30.00 × 1.49 × 0.200 = 250.32 m^3
= 697.32 m^3

Continuation

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Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
on pcc road					
2 × 10 × 30.00 × 0.625 × 0.100					= 37.50m³
2 × 9 × 30.00 × 0.625 × 0.100					= 33.75m³
					71.25m³
Total qty = 768.57					
(19) Construction of granular sub-base by providing Coarse graded material - do - do - (Grading - I)					
Flexible portion :-					
GSB in widening :-					
2 × 10 × 30.00 × 0.525 × 0.100					= 31.5 m³
2 × 15 × 30.00 × 0.525 × 0.100					= 47.25m³
2 × 14 × 30.00 × 0.525 × 0.100					= 44.10m³
					= 122.85m³
GSB in full width :-					
1 × 10 × 30.00 × 4.05 × 0.100					= 121.5m³
1 × 15 × 30.00 × 4.05 × 0.100					= 182.25m³
1 × 14 × 30.00 × 4.05 × 0.100					= 170.10m³
					= 473.85m³
Profile correction (15%)					
10 × 2.10 × 1.50 × 0.175					= 5.5125 m³
6 × 1.90 × 1.60 × 0.150					= 2.736 m³
9 × 2.20 × 1.40 × 0.150					= 4.158 m³
8 × 1.95 × 1.25 × 0.175					= 3.4125 m³
~~2 × 2.10 × 1.45 × 0.150~~					~~= 5.481 m³~~
12 × 1.80 × 1.50 × 0.175					= 5.670 m³
7 × 1.90 × 1.70 × 0.150					= 3.3915 m³

Continuation

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
15 x	1.60	x 1.50	x 0.170	=	6.120 m³
9 x	1.80	x 1.60	x 0.175	=	4.536 m³
5 x	2.00	x 1.80	x 0.150	=	2.700 m³
12 x	1.75	x 1.40	x 0.150	=	4.410 m³
8 x	2.20	x 1.50	x 0.150	=	3.960 m³
10 x	2.00	x 1.70	x 0.175	=	5.950 m³
					= 52.56 m³

2 no. extra widening on curve

$8 \times 25.00 \times \left(\frac{4.05 + 5.70 + 4.05}{3} - 4.05\right) \times 0.100 = 11.70 m^3$

Total qty = 660.26 m³

for CC Portion :-

GSB for box cutting portion

2 x 10	x 30.00	x 0.375	x 0.100	= 22.50 m³
2 x 9	x 30.00	x 0.375	x 0.100	= 20.25 m³
				= 42.75 m³

Profile Correction (10 no.)

8 x 1.80	x 1.50	x 0.120	=	2.592 m³
10 x 2.10	x 1.70	x 0.125	=	4.4625 m³
7 x 1.75	x 1.80	x 0.100	=	2.205 m³
12 x 1.90	x 1.40	x 0.140	=	4.4688 m³
6 x 2.00	x 1.50	x 0.175	=	3.150 m³
5 x 1.95	x 1.85	x 0.150	=	2.705 m³
			=	19.58 m³

2 no. extra widening on curve

$1 \times 19.00 \times \left(\frac{3.75 + 5.25 + 3.75}{3} - 3.75\right) \times 0.100 = 0.95 m^3$

Continuation

for CC Total qty = 63.28 m³

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Total qty of GSB for flexible & rigid portion					
= 660.26 + 63.28					
= 723.54 m3					
(20) Providing, laying, spreading & Compacting of WBM Gr - III					
- do - do -					
1 × 10 × 30.00 × 3.75 × 0.075 = 84.375 m3					
1 × 9 × 30.00 × 3.75 × 0.075 = 75.9375 m3					
= 160.3125 m3					
21) Providing & fixing of typical MMGSY Informatory Sign board with logo					
- do - do -					
qty = 02 Nos.					
Pramod Kr. 16/07/2021 JE					

Continuation

Abstract of cost.

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	

Name of work :- Construction of road from Ganiyari Janakpur to Vorra chhatijara Rampur (Under MMGSY)

Agency :- M/S Adityashree Engicons Pvt Ltd., 31 Shakti Niwas, West Gandhi Maidan Jehanabad.

Agr. No :- 30 MBD / 2020-21

Date of Agreement :- 07/12/2020

Date of Completion :- 08/12/2021

Date of measurement :-

1/(1) Providing & fixing of working benchmark pillars - do - do - VTMB P-1

Working benchmark pillars
02 Nos @ Rs. 3566.26 / each
= Rs. 7132.00

Reference pillars
07 Nos @ Rs. 1617.86 / each
= Rs. 11325.00

2/(3) Clearing & grubbing of road land - do - do - VTMB P-1
1.08 hact. @ Rs. 57161.75 / hact
= Rs. 53255.00

3/(4) Excavation for roadway in soil for carrying out cut earth - do - do - VTMBP-2

Continuation

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Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
170.10 m^3 @ Rs 74.16 /m^3					
= Rs. 12615.00					
4/5) Construction of embankment with approved material deposited from roadway cutting — do — do — VTMB P-2					
102.06 m^3 @ Rs. 55.57/m^3					
= Rs. 5671.00					
~~5/6) Construction of embankment~~					
5/29) Earth work in excavation for foundation of structure — do — do — VTMB P-2					
119.192 m^3	VTMB P-2				
41.181 m^3	VTMB P-5				
160.373 m^3 @ Rs. 294.78/m^3					
= Rs. 47267.00					
6/30) Providing M15 (1:2.5:5) as levelling course in foundation — do — do — VTMB					
11.848 m^3	VTMB P-3				
5.506 m^3	VTMB P-5				
17.354 m^3 @ Rs. 4016.68/m^3					
= Rs. 69705.00					
7/31) Brick masonry work in CM (1:4) in load wall — do — do —					

Continuation

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Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
122.428 m³	VTMB P-3				
38.518 m³	VTMB P-5				
160.946 m³	@ Rs. 5638.68/m³				
	= Rs. 907523.00				
8/32) Providing & laying RCC NP3 pipe on first class bedding					
— do —	— do —				
30.00 m	VTMB P-3				
15.00 m	VTMB P-5				
45.00 m	@ Rs. 3422.42/m				
	= Rs. 154009.00				
9/33) Plastering with cement mortar (1:4) on brickwork in Sub structure					
— do —	— do —				
267.400 m²	VTMB P-4				
81.681 m²	VTMB P-6				
349.081 m²	@ Rs. 144.29/m²				
	= Rs. 50369.00				
10/34) Providing 1.5 mm cement Punning	— do —	— do —			
56.88 m²	VTMB P-4				
17.82 m²	VTMB P-6				
74.70 m²	@ Rs. 45.43/m²				
	= Rs. 3394.00				
11/6) Construction of embankment with material obtained from borrow pit	— do —	— do —			
for 1000 m	VTMB P-8				
496.01 m³	@ Rs. 188.05/m³				
	= Rs. 93275.00				

Continuation

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Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
12/7) For 100 m lead VTMB P-8					
1404.77 m³ @ Rs. 170.62/m3 = Rs. 239682.00					
13/8) Construction of bus grade & earthen shoulder —do—do— VTMB P-9					
768.57 m³ @ Rs. 235.98/m³ = Rs. 181367.00					
14/9) Construction of granular sub-base by providing well graded material (Grading-1) —do—do— VTMB P-11					
723.57 m³ @ Rs. 1630.17/m³ = Rs. 1179493.00					
15/10) Providing, laying, spreading & compacting of WBM GR-3 —do—do— VTMB P-11					
160.3125 m³ @ Rs. 2099.22/m³ = Rs. 336531.00					
16/28) Providing & fixing of typical mimosy Information Sign board with logo —do—do— VTMB P-11					
02 Nos. @ Rs. 9084.10/each = Rs. 18168.00					
= Rs. 3372781.00					

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	B.F. Rs. 3372781.00				
less 9.27+1.95 = (-) Rs. 312657.00 per agreement					
DAO 18.1.2021			= Rs. 3060124.00		
Pramit Kr. 16/01/2021 JE			18.01.2021 AE.		

Continuation