

IMALIYA MORE NAWABGANJ TO MANIYAR GANJ
MAHADALIT TOLA

Schedule XLV-Form No. 134

(MMGSY)
SC

Executive Engineer R.W.D.

DIVISION

Jehanabad

A.F. R.W.D. works.

SUB-DIVISION-

Makhdumpur

MEASUREMENT BOOK

2702

Sch. XLV - Form No. 134

Executive Engineer DIVISION -
Jehanabad

A.E. R.W.D. WORK SUB-DIVISION -
Makhdoom

Measurement Book

No. - 2702

Name of Officer _____

Date of first entry _____

Date of last entry _____

समाप्तिन दिया जाना है कि इस कापी पुस्तक
मशीन कैंडीन कुल 100 (एक सौ) पृष्ठ है,
जिसमें सुविधा के लिए नोट्स के अतिरिक्त,
उपरोक्त के अतिरिक्त, निम्नलिखित नोट्स
निर्दिष्ट किया जाना है।

Schedule PLV-Form No. 134

NOTES

REFERENCE TO P.W.A. CODE, CHPLV
Para 30 & 31

1. 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 measurements should be recorded only by Executive or Assistant Engineers or by Executive Subordinates in-charges of work to whom measurement books have been supplied by the Executive Engineer for the purpose.
- (b) All measurements should be bear taken down in a measurement book Form 23, issued for the purpose, no where else.
- (c) Each set of measurement should commence with entries stating—
 - (i) In the case of bills for work done :-
 - (a) Full name of wok as given in estimate
 - (b) Situation of work
 - (c) Name of contractor.
 - (d) Number and date of his agreement and
 - (e) Date of measurement
 - (ii) In case of bills for supply for materials :-
 - (a) Name of Supplier
 - (b) Number and date of his agreement for order,
 - (c) Purpose of supply in one of the following forms applicable of the case—
 - (i) "Stock" (for all supply for stock purpose)
 - (ii) "Purchase" for direct issue to the work (full name of work as given in estimate may be mentioned)
 - (ii) "Purchase" for (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 25)

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.

- (e) As all payments for work supplies are based on the quantities recorded in the measurement books it is incumbent 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.
- (f) 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 advertently must be cancelled by diagonal lines. The cancellation being attested. See also paragraph or the Public Work Department Code.
- (g) No entry may be erased, of a mistake is made it should 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 cancellation or by reference to his orders installed by the officer who made the measurements in either case the reason for cancellation should be recorded.

Each measurement book should be provided with an index which should be kept up to date

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.	
Name of Work! - Construction of road from Jangliya near Nandaganj to Manjaganj Mahadalit trs.					
Agency! - Sh. Raj Sharma					
Vill.! - Sonnam P.O. - Ghushi, Dist. - Jehanabad					
Ag. NO! - L.S.D. / 2020-21					
Date of Commencement - 02/02/2020					
Date of Completion - 01/04/2021					
Date of measurement -					
① Providing & fixing of working bench mark pillars					
— do — do —					
Qty = 01 NO.					
② Reference pillars					
— do — do —					
Qty = 02 NOS.					
③ Excavation for roadway in soil for carrying of cut earth					
— do — do —					
$2 \times 10 \times 30.00 \times 0.525 \times 0.10 = 31.50 \text{ m}^3$					
$2 \times 10 \times 30.00 \times 0.525 \times 0.10 = 31.50 \text{ m}^3$					
④ Construction of embankment with approved material deposited from road side cutting					

Continuation

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
dty = 60 d. of dty from excavated material from box cutting = 68.00×0.60 = $39.80 m^3$					
(5) Construction of Subgrade & earthen shoulder — do — do — for new construction dty = Nil					
(5) H.P. Culvert — F/W in excavation for foundation of structures — do — do —					
Head wall $3 \times 2 \times 6.450 \times 1.40 \times 1.50 = 81.270 m^3$ Below pipe $3 \times 1 \times 4.830 \times 1.53 \times 0.365 = 8.124 m^3$ $89.394 m^3$					
(6) Providing MIS (Per 1:2.5:5) as levelling course for foundation — do — do — Head wall $3 \times 2 \times 6.450 \times 1.40 \times 0.15 = 8.127 m^3$ Below pipe $3 \times 1 \times 4.931 \times 1.590 \times 0.25 = 5.658 m^3$ Less for pipe $3 \times 0.25 \times 0.7857 \times 1.230^2 \times 5.996 = (-) 4.899 m^3$					

Continuation

$$= 8.886 \text{ m}^3$$

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
⑦ Brick masonry work in cement mortar (1:4) in head wall					
— do — do —					
Head wall					
$3 \times 2 \times 6.150 \times 0.825 \times 2.58 =$					78.543 m^3
Parapet					
$3 \times 2 \times 6.150 \times 0.400 \times 1.20 =$					17.712 m^3
Less top rise					
$3 \times 2 \times 0.7857 \times 1.250^2 \times 0.622 =$					$(-) 4.434 \text{ m}^3$
					$= 91.821 \text{ m}^3$
⑧ Providing & laying RCC NPS pipe of 1000 mm φ — do —					
— do —					
Qty = $3 \times 3 \times 2.50 =$					22.50 m
⑨ Plastering with cement mortar (1:4) on brick work in end-structure — do — do —					
Outer sides					
$3 \times 2 \times 6.150 \times 3.780 =$					139.482 m^2
Inner sides					
$3 \times 2 \times 6.150 \times 0.600 =$					22.14 m^2
Top					
$3 \times 2 \times 6.150 \times 0.400 =$					14.76 m^2
Ends					
$3 \times 4 \times 0.825 \times 2.580 =$					25.572 m^2
Ends (Parapet)					
$3 \times 4 \times 0.400 \times 1.20 =$					5.76 m^2

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
less					
	3	2	0.7857	1.280	$= 7.151 \text{ m}^2$
					$= 200.553 \text{ m}^2$

(10) Providing 1.5 mm cement
 punning including clamping etc
 — do — do —

Top
 $3 \times 2 \times 6.150 \times 0.4102 = 14.76 \text{ m}^2$

Ends (Parapet)
 $3 \times 4 \times 0.410 \times 1.200 = 5.76 \text{ m}^2$

Inner sides
 $3 \times 2 \times 6.150 \times 0.600 = 22.14 \text{ m}^2$
 $= 42.66 \text{ m}^2$

(11) Construction of embankment
 with material obtained from
 borrow pits — do — do —

Chainage (m)	Area (m ²)	Mean Area (m ²)	Dist. (m)	Volume (m ³)
0	3.861			
50	4.912	4.389	50	219.825
100	4.403	4.658	50	232.875
150	3.424	3.914	50	195.675
200	4.459	3.932	50	196.575
250	4.707	4.573	50	228.650
300	5.145	4.726	50	246.300
350	5.928	5.222	50	261.075

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
400	4.424	4.861	50		243.050
450	5.722	5.073	50		253.650
500	3.857	4.787	50		239.325
550	3.069	3.460	50		173.000
600	3.176	3.123	50		156.125
			Total qty =		2645.625 m ³
for 100m lead					
			qty =	Nil	
for 100m lead					
			= 2645.625 x 0.65		
			= 1719.66 m ³		

(12) Construction of granular sub-base by providing well graded material - do - do - GSB in widening

$$2 \times 10 \times 30.00 \times 0.525 \times 0.10 = 31.50 \text{ m}^3$$

$$2 \times 10 \times 30.00 \times 0.525 \times 0.10 = 31.50 \text{ m}^3$$

GSB in full width

$$10 \times 30.00 \times 4.05 \times 0.10 = 121.50 \text{ m}^3$$

$$10 \times 30.00 \times 4.05 \times 0.10 = 121.50 \text{ m}^3$$

for profile correction

$$12 \times 0.25 \times 1.20 \times 0.10 = 3.24 \text{ m}^3$$

$$8 \times 1.80 \times 1.50 \times 0.075 = 1.62 \text{ m}^3$$

$$9 \times 2.05 \times 1.90 \times 0.080 = 2.80 \text{ m}^3$$

$$6 \times 1.50 \times 1.50 \times 0.100 = 1.35 \text{ m}^3$$

$$15 \times 2.10 \times 1.75 \times 0.100 = 5.51 \text{ m}^3$$

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
12x	1.70	1.90	0.090		3.49 m ³
17x	2.05	1.80	0.100		6.27 m ³
9x	2.00	1.90	0.070		2.39 m ³
10x	1.70	2.10	0.100		3.57 m ³
					<u>27.10 m³</u>
for extra widening at curves					
	3 x 24.00	$\frac{4.05 + 5.70 + 4.05}{3}$			
				x 0.100	3.96 m ³
					<u>336.96 m³</u>

⑬ Providing, laying, spreading

and compacting of 100 mm 60-100

— do — do —

$$10 \times 30.10 \times 3.75 \times 0.075 = 84.375 \text{ m}^3$$

$$10 \times 30.00 \times 3.75 \times 0.075 = 84.375 \text{ m}^3$$

Extra widening at curves

$$3 \times 22.10 \times \frac{3.75 + 5.40 + 3.75}{3} - 9.75$$

$$\times 0.075 = 2.72 \text{ m}^3$$

$$= 171.47 \text{ m}^3$$

⑭ Providing & laying of reinforced

Cement concrete pipe duct of

300 mm dia across the road

— do — do —

$$\text{Qty} = 2 \times 7.50 = 15.00 \text{ m}$$

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(15) Providing & fixing of typical masonry information sign board with logo - do - do - qty = 02 NOS.					
(16) clearing & grading of road land - do - do -					
2 x 6.00 x 3.00 = 36.00 m ²					
					$\frac{36.00}{10000}$ hect
					Qty = 0.36 hect.
Calculation 8.3.21 J.E.					
					8.3.21 J.E. Narasimhan
Abstract of cost					
Name of work :- Construction of road from Iimaliya more Navasgarh to Maniyargang Mahadalit talq.					
Agency :- Sh. Raj Sharma, Vill :- Sonwan, P.O. - Ghushi, Dist :- Jehanabad.					
Ag. No :- 11 SBD / 2020-21					
Date of commencement :- 02/07/2020					
Date of completion :- 01/04/2021					
Date of measurement :-					

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
1/1) Providing & fixing of working benchmark pillars — do — do —					
VTMB P-1					
01 No. @ RS. 3640.53/each					
= RS. 3640.10					
2/2) Reference pillars					
— do — do — VTMB P-1					
02 Nos. @ RS. 1658.59/each					
= RS. 3317.10					
3/4) Excavation for roadway for carrying out cut earth					
— do — do — VTMB P-1					
63.00 m ³ @ RS. 74.10/m ³					
= RS. 4668.10					
4/5) Construction of embankment with approved material deposited from roadway cutting					
— do — do — VTMB P-02					
37.80 m ³ @ RS. 55.51/m ³					
= RS. 2098.10					
5/24) E/W in excavation for foundation of structures — do —					
— do — VTMB P-2					
89.394 m ³ @ RS. 285.17/m ³					
= RS. 25492.10					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
6/25) Providing M15 (Pcc 1:2:5:5) as levelling course in foundation					
— do — do —				VTMB P-2	
8.886 m ³ @ Rs. 4384.47					
				= Rs. 38956.40	
7/26) Brick masonry work in Cement mortar (1:4) in head wall					
— do — do —				VTMB P-3	
91.82 m ³ @ Rs. 5708.24/m ³					
				= Rs. 524136.40	
8/27) Providing and laying RCC pipe NPS of 1000 mm ϕ					
— do — do —				VTMB P-3	
22.50 m @ Rs. 3496.46/m					
				= Rs. 78670.40	
9/28) Plastering with cement mortar (1:4) 15 mm thick on brick work					
— do — do —				VTMB P-4	
200.553 m ² @ Rs. 152.57/m ²					
				= Rs. 30598.40	
10/29) Providing 1.5 mm cement finishing including curing etc					
— do — do —				VTMB P-4	
42.66 m ² @ Rs. 46.07/m ²					
				= Rs. 1965.40	
11/6) Construction of embankment with material obtained from borrow pits					
Continuation — do — do —					

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
		VTMB P-5			
1719	66 m ³ @			Rs. 157.62/m ³	
				= Rs. 271053.00	
12/8) Construction of granular sub-base by providing well-graded material — do — do —					
		VTMB P-6			
836.96 m ³ @				Rs. 1798.98/m ³	
				= Rs. 589336.00	
13/9) Providing laying, spreading & Compacting of WBM br-II — do — do — VTMB P-6					
171.47 m ³ @				Rs. 2287.55/m ³	
				= Rs. 392246.00	
14/19) Providing & laying of RCC pipe foot of 300 mm φ across the road — do — do — VTMB P-6					
15.00 m @				Rs. 900.90/m	
				= Rs. 13513.00	
15/28) Providing & fixing of typical MMSy information sign board with logo — do — do — VTMB P-7					
02 nos. @				Rs. 9072.82/each	
				= Rs. 18146.00	

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L	B.	D.	
16/3) Clearing & grubbing of road land — do — do —					
VTang P-7					
0.36 Hect. @ RS. 49524.68/Hect					
= RS. 17829.10					
= RS. 201537.10					
Add 127.655 = (+) RS. 241836.10					
17.655 = (+) RS. 20153.10					
cess					
= RS. 22,7729.10					
Less 10% as per = (-) RS. 227729.10					
Agreement = RS. 2049561.10					

100% Agreement
100%
100%
100%

9.5-9.5 mm	5-E
9.5-9.5 mm	5-E

Material Statement

① E/wr - 1719.66 m ³	
② GSB (Gr-I) - 336.96 m ³	
53-9.5 mm - 215.65 m ³ @	
RS. 576.42	
9.5-2.36 mm - 86.49 m ³ @	
RS 411.53	
2.36 mm & below - 129.17 m ³ @	
RS. 150.80	
③ WBM (Gr-III) - 171.47 m ³	
53-22.4 mm - 207.48 m ³ @ RS. 458.22	
Stone Screening type B 11.2 mm	

Continuation
= 41.15 m³ @ RS. 345.52