

NER TO KATRASIN

Schedule XLV-Form No. 134

Tchudaf DIVISION

Merkelbukta SUB-DIVISION

MEASUREMENT BOOK

2633

E E R u D (w) J e h a n g i r h DIVISION
A F R u D (w) M a t c h e l o r k SUB-DIVISION

Measurement Book

No.

2633

Name of officer _____
J. M. D. (M) DIARIO
GROOTJAAS BURGESS

Date of first entry _____

Date of last entry _____

~~EFERMS~~ Schedule PLV-Form No. 134

**REFERENCE TO P.W.A. CORR CHPI, VII
R.W.D. (W) Division**

**Executive Engineer
CODE CPI, VII
R. W. D. (W) Division**

Paras 39 & 81 Jahanabad

1. In recording detailed measurements the following general instruction should be carefully observed :—
 - (a) Subject to such subsidiary orders as may be laid down by the local Government detailed measurement should be recorded only by Executive or Assistant Engineer or by Executive subordinate in-charges or work to whom measurement books have been supplied to the Executive Engineer for the purpose
 - (b) All measurements should be near taken down in a measurement book From 23, issued for the purpose in where else.
 - (c) Each self of measurement should commence with entries stating —
 - (i) In the case of bills for work done :—
 - (a) Full name of work as given in estimate.
 - (b) Situation of work
 - (c) Name of contract.
 - (d) Number and date of his agreement, and
 - (d) Date of measurement.
 - (ii) "Stock" (ii) "Purchase for direct issue to (here enter full name of work as given to estimate)
 - (iii) "Purchases" or (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 measurements for work done the total quantities of each district item of work relating to each sanctioned Sub-head.

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 measurements relating to each work.)

Particulars	Details of actual measurement				Content of area
	No.	L.	B.	D.	
Name of work :- Repair of road from NER to Ratan Sion.					
Agency :- M.G. Construction & Co. Court area Tehsilbad					
Agr. No :- 08 MBD/ 2019-20					
Date of Agreement :- 21/01/2020					
Date of Completion :-					

Date of measurement :-

① Clearing & grubbing of road land - do - do -

$$2 \times 3900 \times 1.00 = 7800 \text{ m}^2$$

$$\text{Qty. (in Hact.)} = \frac{7800}{14000} = 0.78 \text{ Hact.}$$

② Dismantling of existing structure (stone / brick masonry)

- do - do -

$$\text{Qty.} = 145.80 \text{ m}^3$$

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(3) Removing all types of hume pipe & slackings —do—do—					
					$\text{qty} = 20 \text{ m}^3$
(4) Construction of Subgrade & other shoulders —do—do—					
					$2 \times 1 \times 2500 \times 1.125 \times 0.800 = 1687.5 \text{ m}^3$
					$2 \times 1 \times 1000 \times 1.125 \times 0.250 = 562.5 \text{ m}^3$
					$2 \times 1 \times 200 \times 1.050 \times 0.300 = 126.00 \text{ m}^3$
					$2 \times 1 \times 100 \times 1.000 \times 0.300 = 60.00 \text{ m}^3$
					$\text{qty} = 2436.00 \text{ m}^3$
(5) Construction of G.S.B by providing well graded material —do—do—					
					$6 \times 15.00 \times 1.80 \times 0.125 = 28.35 \text{ m}^3$
					$5 \times 16.00 \times 1.75 \times 0.150 = 21.00 \text{ m}^3$
					$2 \times 30.00 \times 1.60 \times 0.175 = 16.80 \text{ m}^3$
					$3 \times 14.00 \times 1.25 \times 0.125 = 9.188 \text{ m}^3$
					$8 \times 12.00 \times 1.30 \times 0.150 = 18.720 \text{ m}^3$
					$2 \times 30.00 \times 1.50 \times 0.170 = 15.300 \text{ m}^3$
					$4 \times 28.00 \times 1.20 \times 0.125 = 23.520 \text{ m}^3$
					$5 \times 25.00 \times 1.40 \times 0.175 = 30.625 \text{ m}^3$

Continuation

3
Sch. XLV-Form No. 134

Particulars	Details of usual measurement				Contents of area
	No.	L.	B.	D.	
					$6 \times 24.00 \times 1.20 \times 0.125 = 30.240 m^3$
					$4 \times 17.00 \times 1.30 \times 0.125 = 11.050 m^3$
					Total quantity = 204.79

(6) Provision, laying, spreading and compacting WBm Gt-I
— do — do —

	$6 \times 15.00 \times 1.80 \times 0.075 = 12.15 m^3$
	$5 \times 16.00 \times 1.75 \times 0.075 = 10.50 m^3$
	$2 \times 30.00 \times 1.60 \times 0.075 = 7.20 m^3$
	$3 \times 14.00 \times 1.90 \times 0.075 = 5.98 m^3$

	$8 \times 12.00 \times 1.45 \times 0.075 = 10.44 m^3$
	$1 \times 30.00 \times 1.30 \times 0.075 = 2.925 m^3$
	$4 \times 28.00 \times 1.20 \times 0.075 = 10.08 m^3$
	$4 \times 25.00 \times 1.40 \times 0.075 = 10.50 m^3$
	$6 \times 24.00 \times 1.20 \times 0.075 = 12.96 m^3$
	$4 \times 17.00 \times 1.35 \times 0.075 = 6.885 m^3$
	$9 \times 11.00 \times 1.60 \times 0.075 = 11.88 m^3$
	$6 \times 13.00 \times 1.80 \times 0.075 = 10.53 m^3$
	$6 \times 9.00 \times 1.95 \times 0.075 = 7.90 m^3$
	$6 \times 26.00 \times 1.50 \times 0.075 = 11.70 m^3$
	Total quantity = $131.63 m^3$

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(7) Providing laying spreading of compaction of road - do - do -					
6	5.00	1.80	0.175		$6 \times 5.00 \times 1.80 \times 0.175 = 12.15 \text{ m}^3$
5	16.00	1.75	0.175		$5 \times 16.00 \times 1.75 \times 0.175 = 10.10 \text{ m}^3$
2	30.00	1.60	0.175		$2 \times 30.00 \times 1.60 \times 0.175 = 7.20 \text{ m}^3$
3	14.00	2.00	0.175		$3 \times 14.00 \times 2.00 \times 0.175 = 6.30 \text{ m}^3$
8	12.00	1.45	0.175		$8 \times 12.00 \times 1.45 \times 0.175 = 10.44 \text{ m}^3$
1	30.00	1.30	0.175		$1 \times 30.00 \times 1.30 \times 0.175 = 2.925 \text{ m}^3$
4	28.00	1.20	0.175		$4 \times 28.00 \times 1.20 \times 0.175 = 10.08 \text{ m}^3$
5	25.00	1.40	0.175		$5 \times 25.00 \times 1.40 \times 0.175 = 13.125 \text{ m}^3$
6	24.00	1.20	0.175		$6 \times 24.00 \times 1.20 \times 0.175 = 12.96 \text{ m}^3$

4	17.00	1.35	0.175		$4 \times 17.00 \times 1.35 \times 0.175 = 6.885 \text{ m}^3$
9	21.00	1.60	0.175		$9 \times 21.00 \times 1.60 \times 0.175 = 11.88 \text{ m}^3$
13	6.00	1.80	0.175		$13 \times 6.00 \times 1.80 \times 0.175 = 10.53 \text{ m}^3$
6	9.00	1.95	0.175		$6 \times 9.00 \times 1.95 \times 0.175 = 7.90 \text{ m}^3$
8	26.00	1.20	0.175		$8 \times 26.00 \times 1.20 \times 0.175 = 14.04 \text{ m}^3$
4	14.00	1.65	0.175		$4 \times 14.00 \times 1.65 \times 0.175 = 6.93 \text{ m}^3$
14	9.50	1.40	0.175		$14 \times 9.50 \times 1.40 \times 0.175 = 10.97 \text{ m}^3$
23	4.80	1.35	0.175		$23 \times 4.80 \times 1.35 \times 0.175 = 11.178 \text{ m}^3$
8	11.50	1.20	0.175		$8 \times 11.50 \times 1.20 \times 0.175 = 8.28 \text{ m}^3$
44	0.90	0.85	0.175		$44 \times 0.90 \times 0.85 \times 0.175 = 2.32 \text{ m}^3$
16	1.25	1.00	0.175		$16 \times 1.25 \times 1.00 \times 0.175 = 1.50 \text{ m}^3$
14	1.60	1.45	0.175		$14 \times 1.60 \times 1.45 \times 0.175 = 2.436 \text{ m}^3$
21	2.60	1.95	0.175		$21 \times 2.60 \times 1.95 \times 0.175 = 7.985 \text{ m}^3$

Continuation

Sch. XLV-Form No. 134

(8) Positioning of applying
primer coat with bithmer

$\text{E}(\omega_1(S)) \leq -\alpha$

empty ride items no - 02

Page no-05

$$dty = 2925.10 \text{ m}^2$$

⑨ Prioritizing of mitigation tasks

Coat with bituminous emulsion

~~- do + do +~~

dry ride item No-07

Page No - 05

$$q_{ff} = 2925 \cdot v^2 \text{ m}^2$$

⑩ Patch work over Wm

frontiers; laying foundations

of close graded poems Surface

~~Continuation~~
~~dodo~~

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Qty	Width	Item no	0	07	
		Page no	-	05	
		Qty	=	2925.00 m ²	

⑪	Pouring & applying tack
	Coat with bitumen emulsion
	Rs/-
	40 x 30.00 x 3.75 = 4500.00 m ²
	36 x 30.00 x 3.75 = 4050.00 m ²
	25 x 30.00 x 3.75 = 2812.50 m ²
	29 x 30.00 x 3.75 = 3262.50 m ²
	3 x 2.00 x 3.75 = 7.50 m ²

extra for widening

$$\frac{1}{2} \times 12.00 \times (7.5 - 3.75) = 22.5\text{m}$$

$$4 \times 15.00 \times \left(\frac{3.75 + 5.85 + 3.75 - 3.75}{3} \right) = 42.00 \text{m}$$

$$2 \times 18.00 \times \left(\frac{3.75 + 6.10 + 3.75 - 3.75}{3} \right) = 42.00 \text{m}$$

~~15.00 x (3.75 + 5.85 + 3.75 - 3.75) / 3~~

~~Ans 15.00 m²~~

$$1 \times 22.00 \times \left(\frac{3.75 + 5.85 + 3.75 - 3.75}{3} \right) = 15.00 \text{m}^2$$

$$3 \times 20.00 \times \left(\frac{3.75 + 6.10 + 3.75 - 3.75}{3} \right) = 45.00 \text{m}^2$$

Continuation

$$\text{Qty} = 14799.00$$

Sch. XLV-Form No. 134

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

(12) Providing a laying semi-circular berm around crest
- do - do -

Area vide item No - 11

Page No - 06

$$\text{Area (ft)} = 14779.70 \text{ m}^2$$

$$\text{dty (m)} = 14779.70 \times 0.025 \\ = 369.975 \text{ m}^3$$

(13) Providing & fixing of typical information signs

Board - do - do -

$$\text{dty} = 02 \text{ m}^3.$$

⇒ measurement of cut/rear

(14) E/W in excavation for foundation - do - do -

Head wall

$$3 \times 2 \times 3.90 \times 1.15 \times 1.70 = 40.365 \text{ m}^3$$

Below pipe

$$3 \times 1 \times 5.35 \times 1.13 \times 0.365 = 6.62 \text{ m}^3$$

Continuation

$$\text{dty} = 46.986 \text{ m}^3$$

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(15) Provision of laying Pcc M-15 for open foundation -do-					
	$3 \times 2 \times 3.70 \times 1.150 \times 0.150 = 4.039 m^3$				
(16) Half wall by brick masonry -do- -do-					
	$3 \times 2 \times 3.60 \times 0.70 \times 2.18 = 32.961 m^3$				
	Less for pipe				
	$3 \times 2 \times 0.7857 \times 0.830^2 \times 0.530$				
	$= (-) 1.722 m^3$				
	$\therefore \text{Total} = 31.239 m^3$				
(17) Provision Pcc M-15 grade in open foundation -do-do before pipe level					
	$3 \times 1 \times 5.311 \times 1.3 \times 0.25 = 4.58 m^3$				
	Less for pipe				
	$3 \times 0.212 \times 0.7857 \times 0.830^2 \times 5.849$				
	$= (-) 1.722 m^3$				
	$\therefore \text{Total} = 2.778 m^3$				
(18) Provision of laying Pcc NPS pipe 600 mm f -do-do-					
	$3 \times 3 \times 2 \times 50 = 22.50 m$				

Sect. XLV-Form No. 134

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

(19) Bricks measuring 6x12x6
Cement mortar (1:1)

- do - do -

Brickwork

$$5 \times 2 \times 3.60 \times 0.40 \times 60 = 10.368 \text{ m}^3$$

(20) Plastering with cement
mortar - do - do -

$$5 \times 2 \times 3.60 \times 3.38 = 73.008 \text{ m}^2$$

$$3 \times 2 \times 3.60 \times 0.600 = 12.960 \text{ m}^2$$

$$3 \times 2 \times 3.60 \times 0.400 = 8.640 \text{ m}^2$$

$$3 \times 4 \times 0.700 \times 2.18 = 18.312 \text{ m}^2$$

$$5 \times 4 \times 0.400 \times 1.200 = 6.240 \text{ m}^2$$

Less after扣除 -

$$5 \times 2 \times 0.3857 \times 0.830^2$$

$$= (1) 3.299 \text{ m}^2$$

$$\text{Total} = 15.131 \text{ m}^2$$

frame 15' 8' 6'
20' 0' 8' 6' 0'

gc ... AB

Continuation

Abstract of Cost

10

Sch. XLV-Form No. 134

1) cleaning & washing of
soap hand -do- do-

R-T M-B P- 81

0.78 Haft @ Rs. 29524.68

$$= \underline{\text{Rs. } 38629.10}$$

2) Dismantling of existing

stone fire - do - do

145-80 m² (9, RS. 339.17)

= PS-49426.n

3/1) Removal of all type of
harmful fibers - do do -

P-02 : 8m: 10m @ 85 038-69

ERS. 4033. m

Continuation

C.R.F. PS. 92628.10

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
1/5) Construction of Embankment & Shoring - I	V-T.M-B	P-02			
2750.00 m ³ @ Rs. 13625/m ³					= Rs. 431290.-/-
5/6) Construction of G.B Go-II					
→ 0-10 V-T.M-B P-03					
204.99 m ³ @ Rs. 1198.24/m ³					= Rs. 24306.825.-/-
6/7) Pounding, laying, spreading & compacting					
WBM Go-II					
V-T.M-B P-03					
131.63 m ³ @ Rs. 2572.62					= Rs. 333736.-/-
219.37 m ³ @ Rs. 2357.-/-					= Rs. 517055.-/-
7/8) Pounding, laying, spreading & compacting WBM Go-III					
→ 0-10 V-T.M-B P-05					
2725.00 m ² @ Rs. 41.10					= Rs. 1122180.-/-

Continuation

CF. = Rs. 17,98,702.-/-

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
9/11) Bonding & laying down of earth - do - V.T.M.B P-05		4.7 m	4.7 m		
			2925 m ²		
P-06			11377.90 m ²		
			17724.08 m ²		
			17724.08 m ² @ Rs. 13.95		
					= Rs. 247258.00
10/10) Bonding, laying & rolling of promix Surface - do - V.T.M.B P-05					
			2925 m ² @ Rs. 160.00		
					= Rs. 491520.00
11/12) Bonding & laying semi- dense bituminous Concrete - do - do - V.T.M.B P-07					
			369.975 m ³ @ Rs. 8125.16/m ³		
					= Rs. 3007697.00
12/23) F/W do excavation for tank - do - do - V.T.M.B P-07					
			46.986 m ³ @ Rs. 285.17/m ³		
					= Rs. 13399.00
13/21) Bonding m/s for Pec 4.034 m ³ V.T.M.B P-08					
			2.778 m ³ V.T.M.B P-08		

Continuation

6.815 m³ @ Rs. 4142.64/m³
= Rs. 28232.00

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	B.P.	Rs. 55868.56/-			
14/25) Bricks masonry work in Cement mortar - do - do					
	V-T.M.B P-				
	31.239	P- 08			
	10.368	P- 09			
	41.607	m ³ @ Rs. 5646.65/-			
		= Rs. 234940.00			
15/26) Plastering & laying of Rcc pipe 600 mm dia do - do - V-T.M.B P-08					
	22.50 m @ Rs. 1103.8/-/m				
		= Rs. 24836.00			
16/27) Plastering with cement mortar (1:4) - do - do -					
	V-T.M.B P- 07				
	115.431 m ² @ Rs. 145.95/m ²				
		= Rs. 16842.00			
17/22) Plastering & fixing of typical 1m formwork board do - do - V.T.M.B P-07					
	2.00 Nos. @ Rs. 9012.00				
		= Rs. 18024.00			
	Total = Rs. 58,87,503.00				

Continuation

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
B.F.	RS.	58,81,503.10			
less 5.10-1.	RS	2,79,757.1			
as per agreement	= RS.	55,81,536.1			
Point R. i	RS'				
10020	88P20				