

✓ Jell Krasishy

~~RECEIVED~~ TROOP NO. 1248

13.11.54

NO. 1248

BLUE P.W.D.

E.C. R.W.D. WONG Arranged DIVISION

A.C. Kithamby SID-DIVISION

12778

RECEIVED TROOP NO. 1248

16/12/78

Agency - Sharwan & Sunny Const.

Certified That This M.B. Contain (100)
Pages By Printers Matching And issued
To Sri. Bahar Ram A.E.-R.W.L.
Work Sub-Div. Kutumba

Yessiah
10/5/20
Executive Engineer
Rural Works Department
Works Division, Aurangabad
10/5/20

Schedule XLV - Form No. 134.

E.E. A. local.

DIVISION.

A.E. Kutumba.

SUB-DIVISION.

MEASUREMENT BOOK

211161

12448

Name of officer

Shri Bahar Ram A.E.

Kutumba.

Date of first entry

Date of last entry

Page number of first entry

Situation of work -
 Agency by which work is executed -
 Date of measurement -
 and date of agreement
 (These four lines should be repeated at the commence-
 ment of the measurements relating to each work)

Particulars	Details of actual measurement				Contents in area
	No	L	B	D	
1st ON A/C BUL					
Name of Work -					
Construction of Road from Sanola					
District Road to Tad Mahsu					
Via Mahsush to under					
head M.M.G.S.Y.					
Agency - Shriwan D. Sanny					
Construction Rtd. to					
Jaswara more: Aurangabad -					
Agreement No. - 1/4 SPX/20-21					
Date of Work start - 07-09-20					
Date of completion - 01-09-21					

Measurement:-

(1) Dimensioning of
 Existing structure:-

(a) Plain cement concrete

$$2 \times 1 \times 3.50 \text{ M} \times 1.14 \text{ M} \times 0.150 \text{ M} = 4.189 \text{ M}^3$$

$$1 \times 1 \times 3.50 \text{ M} \times 1.54 \text{ M} \times 0.150 \text{ M} = 0.808 \text{ M}^3$$

$$4.997 \text{ M}^3$$

(b) Brick Masonry work

$$7 \times 2 \times 4.20 \text{ M} \times 0.925 \text{ M} \times 2.50 \text{ M} = 121.275 \text{ M}^3$$

$$1 \times 2 \times 6.20 \text{ M} \times 0.925 \text{ M} \times 3.00 \text{ M} = 30.69 \text{ M}^3$$

$$151.965 \text{ M}^3$$

(c) 600 mm dia H.P

$$4 \times 7.5 \text{ M} \times 7.10 \text{ M} = 52.5 \text{ M}^3$$

$$1 \times 600 \text{ mm} - 9 \text{ dia reinforcement} = 2.00 \text{ M}^3$$

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
<u>H.P Culvert 1600 mm dia (6 No)</u>					
(2) E/W in excavation for structure					
N.W					
6 X 2 X 3.9 X 1.5 X 1.50					= 60.73 M ³
below pipe 6 X 5.3 X 1.1 X 1.3 X 0.36					= 12.239
(b) For 1000 mm dia (1 No)					
1 X 2 X 6.45 X 1.4 X 1.50					= 27.09
1 X 4.85 X 1.53 X 0.36					= 2.706
					123.76 M ³
(3) Providing PCC M15 in open excavation					
a For 600 mm dia					
for					
<u>H.W</u>					
6 X 2 X 3.9 X 1.5 X 0.15					= 8.073 M ³
below pipe 6 X 5.3 X 1.1 X 1.3 X 0.25					= 9.002 M ³
(b) For 1000 mm dia					17.075 M ³
1 X 2 X 6.45 X 1.4 X 0.15					= 2.709 M ³
1 X 4.93 X 1.53 X 0.25					= 1.888 M ³
					21.669 M ³
(3) Providing PCC M20 in sub structure					
(a) For 600 mm dia					
H.W					
6 X 2 X 3.6 X 0.7 X 2.78					= 64.067 M ³
parallel 6 X 2 X 3.6 X 0.4 X 0.6					= 10.366
less for pipe 6 X 2 X 0.7 X 0.5					3.442
X (0.33) X 0.5					= 0.1493
					M
For 1000 mm dia					
Continuation					
					92.942 M ³
					90.993 M ³

Sch. XIV Form No. 134					Contents of area
Particulars	No.	I	II	III	
				M	20.992
1) 1X2X6.15X0.822X3.18					42.742M ²
2) 1X2X6.15X.4X.6					2.952
3) 1X2X.20.52X					
(1.2.2)X.622=6)					1.478
					124.736M ²
4) Providing & laying of RCC WP-3 - - - etc					
a) For 600 mm dia					
6X3X2.5M					= 45.00M
b) For 1000 mm dia					
3X2.50M					= 7.50M
5) Setting out					
a) Bench mark - - -					3 NO
b) Reference Pillars - - -					10.00 NO
6) Cleaning & grubbing Road level - - -					
2X35X30MX3.50M					= 2350.00M ²
2X35X30MX3.50M					= 2350.00M ²
2X1X25MX3.50M					= 175.00M ²
					1.4875M ²
				or,	1.487 Hact
7) Excavation for Road					
society (Box Cetting)					

Continuation

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
(A) For B.T location					
$2 \times 22 \times 30 \times 0.525 \times 0.100 \text{ M} = 69.3$					42
$2 \times 22 \times 30 \times 0.425 \times 0.100 \text{ M} = 69.3$					42
$2 \times 5 \times 0.425 \times 0.100$					$= 0.425$
(B) Rigid Pavement					
$2 \times 6 \times 30 \times 0.375 \times 0.100 = 12.50$					
$2 \times 20 \times 0.375 \times 0.100 = 1.50$					
(C) For Rigid Pavement					
$2 \times 10 \times 30 \times 0.375 \times 0.175 = 39.375$					39.375
$2 \times 25 \times 0.375 \times 0.175 = 3.2812$					196.7512
					196.7512
					196.7512

(8) Construction of
 Embankment with
 approved material
 deposited from Road
 way Cuttings - - etc - -
 Qty. vide T. M. B. Items
 110-12)
 60% of $196.75 \text{ M}^3 = 118.05 \text{ M}^3$
 or 118.07 M^3

(9) Construction of
 Embankment with
 material obtained
 from borrow pit
 - - etc - -

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
CH	1.2.22				Volume Fill (M ³)
0	5.229				
50	5.190				268.420
100	5.421				265.460
150	5.462				272.270
200	5.229				267.500
250	5.251				262.610
300	5.148				259.950
350	5.082				255.750
400	4.644				243.160
450	4.153				219.930
500	4.008				204.030
550	3.817				195.630
600	3.597				188.350
650	4.417				200.360
700	6.068				262.140
750	5.524				144.910
800	5.049				396.510
850	6.095				275.600
900	5.952				301.950
950	5.015				274.990
1000	5.784				269.970
1050	5.325				277.720
1100	5.304				265.740
1150	5.046				255.760
1200	5.333				259.490
1250	5.392				254.790
4.9/Continuation					253.500

Particulars	Details of actual measurement				Contents of area
	No	L	B	D	
1300	2	202			284.290
1350	2	225			132.580
1400	3	967			343.250
1450	3	923			196.620
1500	3	913			195.890
1550	4	261			102.420
1600	4	690			336.400
1650	4	647			233.420
1700	4	737			236.620
1750	5	040			244.430
1800	5	126			254.150
1850	5	029			253.850
1900	4	944			249.320
1950	5	177			252.880
2000	4	990			256.050
2050	5	622			260.310
2100	5	266			267.220
2150	5	007			256.830
2200	5	167			254.240
2250	4	042			247.610
2300	4	263			233.100
					11645.290
(a) For 100 m Local					M ³
Allowed 42.4% of					
Total qty 11645.29 M ³					4937.60
b. For 1000 M Local					M ³
Allowed 11% of total					
Qty 11645.29 M ³					1630.36

Sch. XLV-Form No. 134					Contents of area
Particulars	Details of actual measurement				
	No.	L	B	D	
(a) Construction of					
Sub grade - incl. earthwork					
For New Constl (P.T)					
$15 \times 30 \text{ M} \times 2.276 \text{ M} \times 0.3 \text{ M} = 962.26 \text{ M}^3$					
$1 \times 24 \text{ M} \times 2.276 \text{ M} \times 0.3 \text{ M} = 54.57 \text{ M}^3$					
(b) Earthwork					
i. WBM P Surface (P.T) Portion.					
$2 \times 30 \times 30 \text{ M} \times 1.182 \text{ M} \times 0.075 \text{ M} = 159.47$					
$2 \times 30 \times 30 \text{ M} \times 1.182 \text{ M} \times 0.075 \text{ M} = 159.47$					
ii. C.S.B (P.T) Portion					
$2 \times 60 \times 30 \text{ M} \times 1.389 \text{ M} \times 0.2 \text{ M} = 999.36$					
iii. PCC Portion.					
$2 \times 17 \times 30 \text{ M} \times 0.375 \text{ M} \times 0.160 \text{ M} = 61.20$					
$2 \times 12 \times 0.375 \text{ M} \times 0.160 \text{ M} = 1.80$					
iv. PCC WBM Portion.					
$2 \times 17 \times 30 \text{ M} \times 0.375 \text{ M} \times 0.075 \text{ M} = 28.6875$					
$2 \times 12 \times 0.375 \text{ M} \times 0.075 \text{ M} = 0.84375$					
v. PCC C.S.B Portion.					
$2 \times 17 \times 30 \text{ M} \times 0.375 \text{ M} \times 0.100 \text{ M} = 39.25$					
$2 \times 12 \times 0.375 \text{ M} \times 0.100 \text{ M} = 1.125$					
a. For 1000 M Level = 962.91 M ³					
b. For 100 M Level					
30% of 1450.39 M ³ = 435.11 M ³					
(b) For 100 M Level					
70% of total qty = 1015.28 M ³					
Continuation					2487.22 M ³

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
		B/F			2487.2214 ³
a. For 1000 M Load					
20% of Total Qty					= 746.16 M ³
b. For 100 M Load					
20% of Total Qty					= 1741.0014 ³
(II) Construction of					
Granular Subbase					
(G.S.B)					
a. For Port-Patch					
5 X 5 M X 3 M X 100 M					= 7.5 M ³
4 X 1.2 M X 2 M X 1 M					= 9.6 M ³
6 X 10 M X 3 M X 1 M					= 18.00
5 X 12 M X 1 M X 1 M					= 12.00
3 X 6 M X 2.5 M X 1 M					= 4.5
5 X 16 M X 1.00 M X 100 M					= 8.00 M ³
					59.60 M ³
(b) G.S.B. on widening					
Portion					
2 X 4.4 X 30 M X 5.25 M X 100 M					= 138.6 M ³
2 X 1 X 5 M X 0.525 M X 100 M					= 0.52 M ³
(c) G.S.B. for Over-Load					
44 X 30 M X 4.05 M X 100 M					= 534.60 M ³
1 X 5 M X 4.05 M X 100 M					= 2.02 M ³
(d) G.S.B. for earthen portion					
15 X 30 M X 4.05 M X 0.2 M					= 364.50
1 X 25 M X 4.05 M X 0.2 M					= 20.25
					1120.09 M ³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
		A/F			1720.09 M ²
(B) For PCC Portion					
Pot-Patch:					
$5 \times 3 \text{ M} \times 3 \text{ M} \times 0.100 \text{ M}$					$= 4.5 \text{ M}^3$
$4 \times 3 \text{ M} \times 2 \text{ M} \times 0.100 \text{ M}$					$= 2.4 \text{ M}^3$
$7 \times 3 \text{ M} \times 1 \text{ M} \times 0.100 \text{ M}$					$= 2.1 \text{ M}^3$
(2) 7.5. B. m Widening Portion:					
$2 \times 6 \times 30 \text{ M} \times 37.5 \text{ M} \times 0.100 \text{ M}$					$= 13.50$
$2 \times 20 \text{ M} \times 37.5 \text{ M} \times 0.100 \text{ M}$					$= 1.50$
(2) 7.5. B. m PCC Widening					
$2 \times 10 \times 30 \text{ M} \times 37.5 \text{ M} \times 0.100 \text{ M}$					$= 22.50 \text{ M}^3$
$2 \times 1 \times 25 \text{ M} \times 37.5 \text{ M} \times 0.100 \text{ M}$					$= 1.87 \text{ M}^3$
					1161.46 M ³

(12) Providing & Spreading
+ Compacting of WBM

Grade - III

(a) D.T. Portion

$$30 \times 30 \text{ M} \times 37.5 \text{ M} \times 0.075 \text{ M} = 253.125$$

$$30 \times 30 \text{ M} \times 37.5 \text{ M} \times 0.075 \text{ M} = 253.125 \text{ M}^3$$

(b) PCC Portion

$$6 \times 30 \text{ M} \times 37.5 \text{ M} \times 0.075 \text{ M} = 50.625$$

$$1 \times 20 \text{ M} \times 37.5 \text{ M} \times 0.075 \text{ M} = 5.625$$

(c) WBM in PCC Widening

$$2 \times 10 \times 30 \text{ M} \times 37.5 \text{ M} \times 0.075 \text{ M} = 16.875$$

$$2 \times 25 \text{ M} \times 37.5 \text{ M} \times 0.075 \text{ M} = 1.406 \text{ M}^3$$

$$580.79 \text{ M}^3$$

$$\text{or, } 580.79 \text{ M}^3$$

(13) Providing & Fixing of
Logo of Project

$$4 \text{ NO}$$

Particulars

Continuation

(14) Consol. Rigid Pavement

26/01/21

J. E. Kulkarni

M. 24/01/21

$$17 \times 30 \times 37.5 \times 1.60 = 306.00 \text{ M}^3$$

$$1 \times 15 \times 37.5 \times 1.60 = 9.00 \text{ M}^3$$

$$315.00 \text{ M}^3$$

Sch. XLV-Form No. 134					10
Particulars	Details of actual measurement				Contents of area
	No	L	B	D	
<u>ABSTRACT OF COST</u>					
(1) Dismantling of existing structure -					
Qty. waste T. M. B. M-1					
Plaster					
a. Cement Concrete					
4.997 M ³					
@ Rs 434.74/M ³ - Rs 2172.00					
B.W. up					
b. Cement Mortar					
151.96 M ³					
@ Rs 231.77/M ³ - Rs 35221.00					
(2) 600 mm dia Humel Pipe					
52.4 M					
@ Rs 171.75/RM - Rs 9126.00					
(1) Fabric 600 mm dia to 900 mm dia					
5.00 M @ Rs 236.34/RM - Rs 1182.00					
(2) E/W in excavation for foundation of structure					
Qty. waste T. M. B. P/2					
123.76 M ³					
@ Rs 269.32/M ³ - Rs 3331.00					
(3) Providing PCC M 15 in open foundation.					
21.669 M ³					
@ Rs 504.09/M ³ - Rs 109650.00					
Continuation					Rs 159982.00

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
		A/P B			159982=00
(4) Providing PCC M20 in sub structure					
Qty. vol. T.M. B 1/-3					
124.736 M ³					
@ Rs 205.52/M ³ - B					724157=00
(5) Providing RCC N/P-3					
of 600 mm dia					
45.00 M					
@ Rs 1027.26/M - B					46227=00
(6) Providing & Laying					
1000 mm dia N/P-3					
7.614					
@ Rs 3779.00/M - B					28343=00
(7) Setting out					
a. Bench mark					
3 NO @ Rs 3937.98/NO - B					11964=00
b. Reference Pillars					
10 NO @ Rs 12.60/NO - B					126=00
(8) Cleaning & Rubbing Road Land - etc.					
1.467 Hectare					
@ Rs 1133.76/Hect. - B					76036=00
(9) Box cutting					
196.75 M ³ @ Rs 74.16/M ³ - B					14593=00
Continuation					
					Rs 1079421=00

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
		B/I-R			1079421=00
(10) Construction of					
Embankment					
Qty vol. T. N. B. M - 4					
118.07 M ³					
@ Rs 26 11/M ³ - B					3083=00

(11) Construction of					
Embankment					
a. For 1000 m level					
4937.60 M ³					
@ Rs 131.03/M ³ - B					646974=00
b. For 1000 m level					

1630.34 M³@ Rs 174.94/M³ - B 285212=00

(12) Construction of					
Sub grade					
Qty vol. T. N. B. M - 6					
a. For 1000 M Level					
746.11 M ³					
@ Rs 176.56/M ³ - B					131752=00
b. For 100 M Level					
1241.00 M ³					
@ Rs 141.12/M ³ - B					245777=00

Continuation

Rs 2392224=00

