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To Sri... Baba / A.E. R.W.D
Work Sub-Div... Kutumba

Yashwanth
Executive Engineer
Rural Works Department
Works Division, Aurangabad
10/11/2020

Schedule XLV - Form No. 134.

E.E. Akbar

DIVISION.

A.E. Kutumba

SUB-DIVISION.

MEASUREMENT BOOK.

211401

2646

Name of officer

Sri Bikan. Ram A.E.

Kutumba

Date of form sent

Date of last entry

विद्या नगरसेट पेडा, पन्ना ;

(These four lines should be repeated at the commencement of the measurements relating to each work.)

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
④ Rectangular all types of 44mm pile					
(i) Up to 600 mm of					0.
		2 x 3	2.50		$\frac{7.50}{15.00}$
(ii) Above 600 mm					
		1.2 x 1.50			$\frac{5.00}{2.50}$
⑤ Providing and laying R.C.C. pile of 300 mm					
		2 x 4	2.50		20.00 m ³
⑥ E/W in excavation & formwork of structure					
		4.40 x 2 x 2 x 3.90 x 1.15 x 1.50			$= 26.91 \text{ m}^3$
Below pile - 2 x 1 x 5.35 x 1.13 x 0.365					$= 4.41 \text{ m}^3$
					<u>31.32 m³</u>
⑦ Providing 15-15 P.C.C. in open foundation					
		4.40 x 2 x 2 x 3.90 x 1.15 x 0.15			$= 2.69 \text{ m}^3$
Below pile - 2 x 1 x 5.35 x 1.13 x 0.25					$= 3.00 \text{ m}^3$
					<u>5.69 m³</u>
⑧ Providing P.C.C. M-20 in sub-structure					
		4.40 x 2 x 2 x 3.60 x $\frac{1.00 + 0.40}{2}$ x 2.78			$= 28.02 \text{ m}^3$
Parapet - 2 x 2 x 3.60 x 0.40 x 0.60					$= 3.46 \text{ m}^3$
Less pile - 2 x 2 x $\frac{7}{8}$ x (0.83) x 0.53					$= 1.14 \text{ m}^3$
					<u>30.34 m³</u>
⑨ Providing and laying R.C.C. up to 4. pile of 600 mm					
		2 x 3	2.50		15.00 m ³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
(10) Excavation for roadway					
cut (box cutting)					
$2 \times 6 \times 30 \times 0.525 \times 0.10 = 18.90 \text{ m}^3$					
$2 \times 1 \times 20 \times 0.525 \times 0.10 = 2.10 \text{ m}^3$					
$2 \times 9 \times 30 \times 0.375 \times 0.10 = 20.25 \text{ m}^3$					
$2 \times 1 \times 15 \times 0.375 \times 0.10 = 1.13 \text{ m}^3$					
					<u>42.38 m³</u>

(11) Excavated material from box cutting

$$42.38 \times 60/100 = 25.43 \text{ m}^3$$

(12) Construction of subgrade and earthen shoulders

$$3 \times 30 \times \frac{6.83 + 7.72}{2} \times 0.30 = 196.43 \text{ m}^3$$

$$2 \times 9 \times 30 \times (1.182 \times 0.075 + 1.388 \times 0.20) = 197.77 \text{ m}^3$$

$$2 \times 1 \times 20 \times (1.182 \times 0.075 + 1.388 \times 0.20) = 14.65 \text{ m}^3$$

$$2 \times 9 \times 30 \times 0.375 \times 0.335 = 67.83 \text{ m}^3$$

$$2 \times 1 \times 15 \times 0.375 \times 0.335 = 3.77 \text{ m}^3$$

$$(1) \text{ less up to 100 m} = 144.14 \text{ m}^3 \quad 480.45 \text{ m}^3$$

$$(2) \text{ less up to 100 m} = 336.31 \text{ m}^3$$

(13) Construction of G.S.B.

$$2 \times 6 \times 30 \times 0.525 \times 0.10 = 18.90 \text{ m}^3$$

$$2 \times 1 \times 20 \times 0.525 \times 0.10 = 2.10 \text{ m}^3$$

$$1 \times 6 \times 30 \times 4.05 \times 0.10 = 72.90 \text{ m}^3$$

$$1 \times 1 \times 26 \times 4.05 \times 0.10 = 10.53 \text{ m}^3$$

$$1 \times 3 \times 30 \times 4.05 \times 0.20 = 72.90 \text{ m}^3$$

$$2 \times 9 \times 30 \times 0.375 \times 0.10 = 20.25 \text{ m}^3$$

$$2 \times 1 \times 20 \times 0.375 \times 0.10 = 1.50 \text{ m}^3$$

Profile correction

$$6 \times 1.85 \times 1.60 \times 0.15 = 2.66 \text{ m}^3$$

$$9 \times 1.70 \times 1.85 \times 0.15 = 4.25 \text{ m}^3$$

$$5 \times 2.15 \times 1.55 \times 0.15 = 2.55 \text{ m}^3$$

$$7 \times 2.10 \times 1.80 \times 0.15 = 3.97 \text{ m}^3$$

Continuation

$$8 \times 1.98 \times 1.76 \times 0.15 = 4.18 \text{ m}^3$$

$$5 \times 2.45 \times 2.05 \times 0.15 = 3.77 \text{ m}^3$$

$$4 \times 1.74 \times 0.90 \times 0.15 = 0.94 \text{ m}^3$$

$$\underline{222.03 \text{ m}^3}$$

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
(14) Providing levelling with gravel. <u>111</u>					
9x 30x 3.75x 0.075 =					75.94 m ³
1x 26x 3.75x 0.075 =					
1x 26x 3.75x 0.075 =					7.25 m ³
8x 30x 3.75x 0.075 =					67.50 m ³
1x 15x 3.75x 0.075 =					4.22 m ³
1x 30x 2.75x 0.075 =					6.19 m ³
1x 19x 2.75x 0.075 =					3.86 m ³
					<u>164.95 m³</u>

(15) construction of cement

concrete pavement 0.30

8x 30x 3.75x 0.160 =	144.00 m ³
1x 15x 3.75x 0.160 =	9.00 m ³
1x 30x 2.75x 0.160 =	13.20 m ³
1x 19x 2.75x 0.160 =	8.36 m ³
	<u>174.56 m³</u>
	Gravited. 174.42 m ³

(16) Construction of embankment with material.

C/W calculation.

Chainage	Fill Area	Mean Area	Dist.	Pill Volume.
0	5.258	—	—	—
50	5.003	5.131	50	256.525
100	5.109	5.046	50	254.300
150	4.586	4.877	50	243.875
200	5.027	4.807	50	240.325
250	5.100	5.064	50	253.175
300	3.693	4.396	50	219.825
350	3.077	3.385	50	169.250

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
Chaining	Pill Area	Mean Area	Dist.		Pill volume.
350	3.077	—	—		—
400	3.026	3.052	50		152.575
450	3.107	3.102	50		155.075
500	3.062	3.119	50		155.975
575	3.008	3.025	75		227.625
			Total qty		2328.525 ³
Deductions.					
			Subgrade & shoulders (-)		480.455 ³
			C.S.B. — (-)		222.035 ³
			W.M. gr. — (-)		164.955 ³
			C.C. pavement (-)		174.425 ³
			Net qty		1286.675 ³
			(i) For 1000 M. long =		480.265 ³
			(ii) For 100 M long =		788.585 ³
(17)	Providing and fixing of				
	M.H.S.Y. sign board - 2 Nos.				
Sunit Kumar					
21/10/2020					
J.E.					
8.12.20					
A.E.					