

Agency - Mureshwar Singh

Boite Bigha Pitch 14 to Navidash Tola -

~~XXXXXXXXXX~~

17.11.4.81

10.10.10

DMAR P.W.D.

E.E. R.I.D. work arranged **DIVISION**

K. Kumbha **S.D. DIVISION**

~~XXXXXXXXXX~~

MEASUREMENT BOOK No. 27817

~~XXXXXXXXXX~~

Unit of the measurements relating to each work

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D.	
<u>Est on A/c Bill</u>					
Name of work -	Buzurg Bigha Pitch Road to Ravidas Tola under Head M.M. G.S.Y				
Agency -	Sri Murali War Singh, At Salhama P.O. Khatia, Arrangasul				
Agreement No -	70 & B.D / 2020-21				
Agreement No -	R- 1851559 =				
Date of work start -	08/06/2020				
Date of completion -	07/03/2021				
Rate -	107.60 per sq B.O. & Rate				

<u>Measurement</u>					
① 1/2 clearing and grubbing					
road land - d - 24 I					
2x	10	30m	3.50m	=	2100.00m ²
2x	1x	20m	3.50 m	=	140.00m ²
					2240m ²
				=	0.22 hectare
② Erection and fixing					
of typical M.M. G.S.Y					
Informatory sign					
Base - d - d - 24 I					
	1x	2	=	2 Nos	
Construction of boundary					
H.P. culvert					
3/25 24 W in excavated for					

Continuation

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

Formwork of structure

— do — do — 24 I

$$H.W. - 2 \times 2 \times 3.90 \times 1.15 \times 1.5 \text{ m} = 26.91 \text{ m}^3$$

$$\text{Below Pipe} - 2 \times 5.350 \times 1.13 \times 0.365 \text{ m} = 4.41 \text{ m}^3$$

$$\underline{31.32 \text{ m}^3}$$

(26) Lining of concrete

in formwork — do — 24 I

$$H.W. - 2 \times 2 \times 3.90 \times 1.15 \times 0.15 = 2.70 \text{ m}^3$$

$$\text{Below Pipe} - 2 \times 5.31 \times 1.13 \times 0.20 \text{ m} = 3.09 \text{ m}^3$$

$$\underline{5.70 \text{ m}^3}$$

(27) Lining of concrete

concrete in formwork

Structure — do — 24 I

Head wall

$$2 \times 2 \times 3.60 \times 0.70 \times 2.78 \text{ m} = 28.022 \text{ m}^3$$

$$\text{Part 2} \times 2 \times 3.60 \times 0.40 \times 0.60 = 3.456 \text{ m}^3$$

$$\underline{31.478 \text{ m}^3}$$

Less for pipe

$$2 \times 0.788 \times (0.50)^2 \times 0.53 = 0.114 \text{ m}^3$$

$$\underline{30.34 \text{ m}^3}$$

(28) Lining of concrete

Pipe 1100 mm

diam for Calcul — do — 24 I

$$2 \times 3 \times 2.5 \text{ m} = 15.00 \text{ m}^3$$

(i) Lining and fixing

of working B.M. formwork

— do — do — 24 I

$$1 \times 1 \text{ No} = 1 \text{ No}$$

(5) Construction of embankment

Material estimated for embankment

R.K. — do — do — 24 I

At the end of calculation

Continuation

Particulars	Details of actual measurement				Contents of area
	No	L	B	D	
Sta	Ch	Fill Area	Meaning in m ²	Distance	Fill volume
1	0	1.276			
2	50	2.660	1.968	50	98.400 m ³
3	100	2.956	2.808	50	140.400
4	150	1.808	2.382	50	119.100
5	200	1.607	1.708	50	85.375
6	250	1.797	1.702	50	85.100
7	300	1.775	1.786	50	89.300
8	320	1.875	1.825	20	36.500
					654.125 m ³

Lead up to 100m - 490.63 m³Lead up 1000m - 163.55 m³

2000
 4.221
 3.2

4.221
 4.221
 A.E.

Measurement

Q/3 Excavation for road way

- d - Box Culvert - 1.5 I

$$2 \times 2 \times 30 \text{ m} \times 0.875 \text{ m} \times 0.10 \text{ m} = 4.50 \text{ m}^3$$

$$2 \times 1 \times 10 \text{ m} \times 0.375 \times 0.10 \text{ m} = 0.75 \text{ m}^3$$

$$2 \times 8 \times 30 \text{ m} \times 0.525 \times 0.10 \text{ m} = 25.20 \text{ m}^3$$

$$2 \times 1 \times 10 \text{ m} \times 0.525 \times 0.10 \text{ m} = 1.05 \text{ m}^3$$

$$31.50 \text{ m}^3$$

②/4 Construction of embankment

- d - Material deposited

at site - d - 1.5 I

$$\text{At grade ch No ①/3} = 31.50 \text{ m}^3 \times 60\%$$

$$= 18.90 \text{ m}^3$$

③/5 Loading granules

Sub-base - d - 5.395

- d - 1.5 I

Continuation

(A) Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
2x 8x 30m x 0.525 x 0.10 = 25.20 m ³					
2x 1x 10m x 0.525 x 0.10 m = 1.05 "					
1x 8x 30m x 4.10 m x 0.10 = 98.40 "					
1x 1x 10m x 4.105 x 0.10 m = 4.10 "					
2x 2x 30m x 0.375 x 0.10 m = 4.50 "					
2x 1x 10m x 0.375 x 0.10 m = 0.75 "					
					134.00 m ³

(B) In-profile Corridor

$$1 \times 9.60 \times 1.70 \text{ m} = 16.32 \text{ m}^2$$

$$1 \times 8.85 \times 1.80 = 15.93 "$$

$$2 \times 7.0 \text{ m} \times 2.0 \text{ m} = 28.00 "$$

$$1 \times 10.35 \times 1.90 = 19.66 "$$

$$1 \times 9.85 \times 1.75 = 17.23 "$$

$$2 \times 6.0 \times 2.0 = 12.00 "$$

$$1 \times 10.50 \times 1.65 = 17.32 "$$

$$1 \times 9.45 \times 1.70 = 16.06 "$$

$$2 \times 7.0 \text{ m} \times 2.0 \text{ m} = 28.00 "$$

$$170.52 \text{ m}^2$$

$$\text{Volume} = 170.50 \text{ m}^2 \times 0.10 \text{ m (AV)} = 17.05 \text{ m}^3$$

$$\text{Total} = 151.05 \text{ m}^3$$

(4/10) Sliding Laying

Sliding and Compacting

- d - W. 0.01 m x 0.3 - d -

$$1 \times 8 \times 30 \text{ m} \times 3.75 \text{ m} \times 0.025 \text{ m} = 67.50 \text{ m}^3$$

$$1 \times 1 \times 10 \text{ m} \times 3.75 \times 0.075 \text{ m} = 2.81 \text{ m}^3$$

$$2 \times 2 \times 35 \text{ m} \times 3.75 \text{ m} \times 0.075 \text{ m} = 19.69 \text{ m}^3$$

(5/14) Constructing 4m - reinforced

- d - Plain concrete Compacted

Reinforced - d - d - R.I.

Particulars	Details of actual measurement				Contents of area
	No.	L	B	H	
1x	2x30m	27.5m	0.16m		26.00m ²
1x	1x10m	3.75m	0.16m		6.00m ²
					42.00m ²

7.8 Contribution of 2nd

grade and earthwork

2x8x30m - d - EI

$$2 \times 8 \times 30 \times 1.50 \times 0.175 \text{ m} = 26.00 \text{ m}^2$$

$$2 \times 1 \times 10 \times 1.50 \times 0.175 \text{ m} = 5.25 \text{ m}^2$$

$$2 \times 2 \times 30 \times 1.50 \times 0.10 \text{ m} = 18.00 \text{ m}^2$$

$$149.25 \text{ m}^2$$

$$\text{Lead} - 1000 \text{ m} = 44.77 \text{ m}^2$$

$$\text{Lead} - 100 \text{ m} = 104.48 \text{ m}^2$$

20/2/21
20/2/21

1st on 11c Bill

Abstract of cost

① (i) Finishing and fixing

of working B.M. pillar

— do — do — EI

Hydr. T.M.B.P. No ②

= 4 Mo

$$3987 = 98 \text{ per R} - 3988 =$$

② clearing and grubbing

road land - d - EI

Hydr. T.M.B.P. No ①

= 0.22 hect

$$51133 = 70 \text{ per R} - 11249 = 0$$

③ Finishing Box culvert

— d — do — EI

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	1	2	3	
Intermentary Sign					
Born - do - do - CI I					
Hydrant T.M.B. No (1)					
= 2 MB					
Q 9271 = 0.8 / m ³ R - 18542 = 0					
constant H.P. fuel					
Q 24 24 in excav. for					
for fuel - do - CI I					
Hydrant T.M.B. No (2)					
= 31.32 MB					
Q 269 = 32 / m ³ R - 8435 = 0					
(26) Laidy face M.S. panel					
- do in for fuel					
- do - do - CI I					
Hydrant T.M.B. No (2)					
= 5.70 MB					
Q 5014 = 0.9 / m ³ R - 28580 = 0					
(27) Laidy face Cement					
- Corridor Main Sides -					
Struck - do - CI I					
Hydrant T.M.B. No (3)					
= 30.34 MB					
Q 5805 = 52 / m ³ R - 176139 = 0					
(28) Laidy face and laying					
R.C.C. Pipe MB of					
dia 600 mm for					
Culvert - do - CI I					
Hydrant T.M.B. No (2)					
= 15.00 MB					

