

MMGSY - TO3 to Gramdhijam - 1.818km.  
Name of Agency - Deodhars Yadav.

**Schedule XLV Form No. 134.**

Ag-No - 655BD - 2019-20

RWD Shershoke

DIVISION

Dobhi

SUB-DIVISION

19-12-2019

FD

18-12-2020

**Measurement Book**

MB no - 1161

Certified this MB is contain 01  
to 100 pages Print by Machine only.  
This MB issued to A.E. R.W.D (W)  
Sub div Dobli

Executive Engineer  
RWD, Works Division  
Sherghati

CA  
8/5/20

Sch. XLV-Form No. 134

Sherghati DIVISION  
Dohi SUB-DIVISION

## Measurement Book

No. 1161

Dt. of work start:- 19.12.19

Dt. of work comp:- 18.12.20

Name of officer \_\_\_\_\_

Date of first entry \_\_\_\_\_

Date of last entry \_\_\_\_\_

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				Contents of area
	No.	L.	B.	D.	
		<u>ISTOM HC Bell</u>			
Name of work: Construction of road from Toz to Gandhi Jam.					
Name of Agency - Deodhari Yadav.					
AGNO - 655AD - 2019-20					
Date of W/O: - 19-12-2019					

Date of completion - 18-12-2020  
 Date of measurement - 16/20

Chainage	Area	Mean Area	Length	Volume
in M	$\text{cm}^2$	$\text{cm}^2$	in M	$\text{cm}^3$
0M	3.0			
100M	4.0	3.50	100	$350\text{M}^3$
200M	5.0	4.50	100	$450\text{M}^3$
300M	5.5	5.25	100	$525\text{M}^3$
400M	5.8	5.65	100	$565\text{M}^3$
500M	4.0	4.90	100	$490\text{M}^3$
600M	3.80	3.90	100	$390\text{M}^3$
700M	4.20	4.01	100	$400\text{M}^3$
800M	4.0	4.10	100	$410\text{M}^3$
900M	4.2	4.10	100	$410\text{M}^3$
			C.O.	$3990\text{M}^3$

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Particulars	Details of actual measurement				Contents of area Volume
	No.	L.	B.	D.	
Chainage	Area	Mean Area	Length	$\frac{A+B}{2}$	$\frac{A+B}{2} \times L$
1000m	4.5	4.35	100	100	$3970m^3$ $435m^3$
1100m	3.9	4.2	100	100	$420m^3$
1200m	3.6	3.75	100	100	$375m^3$
1300m	3.40	3.50	100	100	$350m^3$
1400	3.80	3.60	100	100	$360m^3$
1500	4.0	3.90	100	100	$390m^3$
1600	4.2	4.10	100	100	$410m^3$
1700	4.3	4.25	100	100	$425m^3$
1760m	4.0	4.15	60	60	$249m^3$ $415m^3$
	e.	Quantities			$7404m^3$
	LESS for G.S.B.				-
	c.c Road Portion				-

$$268m \times 3.75 \times 0.10 = 1005m^3$$

$$BT Portion: - 1492 \times 4.05 \times 0.20 = 1208.52$$

$$Net E/W: - 6094.98m^3$$

## 2. Construction of Sub

grade and earthen shoulder  
with approved material with lead  
1000m as per spec.

$$79.50\% \text{ E/W of Item No-10}$$

$$\text{Rate - (2), or, } 79.50\% \times 6094.98 = 4845.51m^3$$

## 3. Construction of embankment

with approved material obtained  
from borrow pits with lead

- 1.5m and Lead - 100m.

$$\text{Quantity } 20.5\% \text{ E/W}$$

$$\text{of Item No-11 (2) or, } 20.5\% \times 6094.98 = 1249.47m^3$$

Particulars	Details of actual measurement				Contents of area	
	No.	L.	B.	D.		
<u>C. D. WORK</u>						
4. E/W in open <sup>to</sup> of found <sup>ty</sup> of structure as per drawing and technical sp <sup>ts</sup> for 600mm dia I/P.C. - L.N.O						
Face wall:-	2	3.90	1.24	0.15	14.51m <sup>3</sup>	
Pepe provision:-	1	6.22	1.02	0.80	5.08m <sup>3</sup>	
for 1000mm dia I/P.C. - 4.N.O						
Face wall:-	4	2	6.30	1.4	105.84	
Pepe provision:-	4	1	5.9	1.5	28.32	
for - 2m x 2m Spah:-						
Abut:-	2	7.6	2.3	1.6	55.94m <sup>3</sup>	
R/W:-	4	2.44	2.097	1.6	32.75m <sup>3</sup>	
Total:-					242.44m <sup>3</sup>	
limited					231.16m <sup>3</sup>	
5. Providing plain concrete in open found <sup>ty</sup> as per sp <sup>ts</sup> for - 600mm dia I/P.C.						
FW:-	1	2	3.90	1.24	0.15	1.45
for - 1000mm dia I/P.C. -						
FW:-	4	2	6.30	1.4	0.15	10.60m <sup>3</sup>
for - 2m x 2m R.C.C. Culvert						
Abut:-	2	7.6	2.3	0.2	6.99m <sup>3</sup>	
R/W:-	4	2.44	2.097	0.2	4.09m <sup>3</sup>	
Total:-					23.13m <sup>3</sup>	
limited					21.72m <sup>3</sup>	
6. Providing concrete for plain concrete in open found <sup>ty</sup> as per sp <sup>ts</sup> for - 600mm dia I/P.C. -						
	2	3.6	0.85	1.35	8.41m <sup>3</sup>	

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
For 1000 mm dia RCC					8.41 m <sup>3</sup>
4 x 2 x 6 x 1.025 x 1.35 =					66.99 m <sup>3</sup>
For 2m x 2m R.C.C. Culvert -					
Abuts = 2 x 6.8 x 1.8 x 1.4 =					34.272 m <sup>3</sup>
R/W = 4 x 2.44 x 1.6 x 1.4 =					21.96 m <sup>3</sup>
					130.982 m <sup>3</sup>
<del>Limit ed</del>					123.45 m <sup>3</sup>
7. Plain cement concrete in					
Sub structure as per drawing					
and technical spc.					
FW = 2 x 3.6 x 0.48 x 1.12 =					3.87 m <sup>3</sup>
For 1000 mm dia RCC =					
FW = 4 x 2 x 6 x 0.53 x 1.8 =					46.08 m <sup>3</sup>
4 x 2 x 6 x 0.4 x 0.60 =					11.52 m <sup>3</sup>

for R.C.C. Culvert -					
Abut = 2 x 6.0 x 1.0 x 1.8 =					21.60 m <sup>3</sup>
R/W = 4 x 2.44 x 0.75 x 2.0 =					14.64 m <sup>3</sup>
					97.71 m <sup>3</sup>
<del>Limit ed</del>					89.7306

8. Reinforced cement concrete

in Substructure as per spc

R/W coping = 4 x 2.44 x 0.40 x 0.150 = 0.55

Abut cap = 2 x 6 x 0.70 x 0.20 = 1.68

Kelepet = 2 x 3 x 0.40 x 0.60 = 1.44 m<sup>3</sup>

Dirt wall = 2 x 6 x 0.40 x 0.240 = 1.15 m<sup>3</sup>

~~Limit ed~~ = 4.82 m<sup>3</sup>

Particulars	Details of actual measurement				Co of area
	No.	L.	B.	D.	
9. Priori dry and laying Cement concrete Pipe on first class bedding of granular material.					
(A) - 600mm $\phi$ I.P.C. -					
1 x 3 x 2.5m					= 7.5m <sup>3</sup>
(B) - 1000mm $\phi$ I.P.C. -					
4 x 3 x 2.5m					= 30m <sup>3</sup>
10. Laying Bedding on well compacted sand maximum etc.					
Below Pipe - 600mm $\phi$ I.P.C.					

1 x 6.22 x 1.02 x 0.55 = 1.49m <sup>3</sup>					
for 1000mm $\phi$ I.P.C. -					
4 x 5.9 x 1.5 x 0.55 = 19.47m <sup>3</sup>					
					20.96m <sup>3</sup>
Less for pipe resting					
4 x 5.9 x 0.22 x 1 = 5.20m <sup>3</sup>					
1 x 6.22 x 0.16 x 1 = 1.0m <sup>3</sup>					
Net Bedding - 14.76m <sup>3</sup>					
11. Raising in form & trenches					
as per Sp <sup>ts</sup> .					
Face wall:- 2 x 3.6 x 0.41 = 2.920m <sup>3</sup>					
Around pipe:- 1 x 6.46 x 1.02 x 0.42 = 2.77					
for 1000mm $\phi$ I.P.C. -					
Face wall:- 4 x 2.26 x 0.405 = 19.44m <sup>3</sup>					
Around pipe:- 4 x 6.30 x 1.5 x 0.9 = 39.02m <sup>3</sup>					
					59.15m <sup>3</sup>

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				3712	59.15m
Less for P.P. 1-	1x	6.46	0.25		1.590m <sup>2</sup>
4x	6.30	0.91			22.92m
					34.64m <sup>2</sup>

12. Supplying, fixing and placing 12mm dia reinforcement in Super Structure as

per sp for 2m x 2m R.C.C Culvert in Deck slab

Main bars - 12mm dia -

85 x 2.85m = 242.25m

Distr. bars - 34 x 5.90m = 200.60m

442.85m

@ 0.89 kg/m = 394.14kg

Top main bars - 10mm dia.

85 x 2.60m = 221m

Distr. : 34 x 5.90m = 200.60m

421.60m

@ 0.62 kg/m = 261.39kg

Total Steel = 655.53kg

or 0.65553 MT.

13. Providing and laying

reinforced cement concrete

in Super Structure

as per sp

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
					$1 \times 6.01 \times 2.60 \times 0.240 = 3.744 \text{ m}^3$
14. Back filling behind abutment, wing wall and return wall as per Sp <sup>t</sup> = Sandy material - Abut. -					$2 \times 2 \times 4.504 \times 1.8 = 16.22 \text{ m}^3$
Trench filling:					$4 \times 4 \times 6 = 96.00$
					$4 \times 2.44 \times 1.80 = 17.57$
					33.79 m <sup>3</sup>
15. Construction of Bench (2) mure -					$72 \times 25 = 1800 \text{ m}^2$
					$1 \times 18 \text{ m} = 18 \text{ m}^2$

					1818 m.
or					1.818 Km.
(2) Construction of stone pillars -					$72 \times 25 \text{ m} = 1800 \text{ m}^2$
					$1 \times 18 \text{ m} = 18 \text{ m}^2$
					1818 m <sup>2</sup>
					or - 1.818 Km <sup>2</sup>
16. clearing and contour Road Land -					$72 \times 25 \text{ m} \times 6.5 \text{ m (avg)} = 11875 \text{ m}^2$
					$1 \times 18 \text{ m} \times 6.5 \text{ m (avg)} = 117 \text{ m}^2$
					11934 m <sup>2</sup>
					or - 1.1934 Hec <sup>2</sup>







Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
as per spt					18525
Quantity wide Rafe (7)					
1.1934 Hectare					
@ RS. 49809.13/Hectare					59442
3/12. Construction of embankment with approved material with Lead 100m. Quantity wide Rafe (2) - 1249.47 m <sup>3</sup>					
@ RS. 151.50/m <sup>3</sup>					RS. 189294
4/13. Construction of					

Subgrade and earthen shoulder with approved material as per spt					
Quantity wide Rafe (2)					
4845.51 m <sup>3</sup>					
@ RS. 19683/m <sup>3</sup>					RS. 953749
<u>C.D. WORK</u>					
5. E.T.W. excavation of foundation of structure as per spt					
Quantity wide Rafe (3)					
231.16 m <sup>3</sup>					
@ RS. 285.71/m <sup>3</sup>					RS. 66045
6. Providing plain concrete on top of foundation					
Quantity wide Rafe (3), 21.72 m <sup>3</sup>					
@ RS. 5787.13/m <sup>3</sup>					RS. 125696
					C-RS. 1412744

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
					17/10/24 14127445
7. Provisioning Plain concrete in open formwork					
Quantity vide Refe - (A)					
123.43 m <sup>3</sup>					@RS. 5584.50 / @RS. 689295
8. Plain cement concrete in Sub structure as per sp <sup>12</sup>					
Quantity vide Refe - (A), 89.73 m <sup>3</sup>					@RS. 5795.08 / @RS. 519993
9. Reinforced cement concrete in Sub structure					

Quantity vide Refe - (A)					
4.46 m <sup>3</sup>					@RS. 6860.77 / @RS. 30599
10. Supplying filter and and pleon Hysobar in Super structure.					
Quantity vide Refe - (B)					
0.65533 M.T.					@RS. 78139.96 / @RS. 51207
11. Primary and layin reinforced cement concrete in Super structure					
at deck slab					
Quantity vide Refe - (A), 3.19 m <sup>3</sup>					@RS. 7763.34 / @RS. 29035

Continuation C. @RS. 2732873

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
12. Back filling below d. mant and wing wall. Quantity vide rate - (7) - 33.79 m <sup>3</sup>					2732885
@ RS. 874.93/m <sup>3</sup>					295645
13. Providing and laying Cement concrete pipe NP3. Hume pipe.					
(A) 600mm dia HPC, Dussky vide rate - (5) - 7.5 m					
@ RS. 1288.70/m					RS. 96652
(B) 1000mm dia HPC					

Quantity vide rate					
(5), 30m.					
@ RS. 4141.59/m					RS. 124248
14. Laying Bedding on well compacted sand					
Quantity vide rate - (5)					
14.76 m <sup>3</sup> @ RS. 610.51/m <sup>3</sup>					RS. 90112
15. Filling in foundation from ches as per drawing and technical sp.					
Quantity vide rate (5)					
34.64 m <sup>3</sup> @ RS. 610.51/m <sup>3</sup>					RS. 21148
CO. RS.					2926499
					2926509

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			13/ARS		2926499- 2926509
16. Construction of granular sub-base by providing well graded material					
Quantity vide Rate - (8)					
	1338.60m	ARS. 2695.21			RS. 3607808- 6534307- 6534317-
Less 20% below					
					RS. 6534317-
Admitted as per A/c					
					RS. 5880876- 5880886
<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;">               31/6/20              J.E.           </div> <div style="text-align: center;">               S.P.           </div> </div>					

1st on A/c

Memo for Payment of Rs 4657761=0

S.D - 8% - Rs 372621=0

I. Tax - 1% - Rs 46578=0

L. Cost - 1% - Rs 46578=0

912837=0

CGST - 1% - Rs 46578=0

921837=0

SGST - 1% - Rs 46578=0

(11)

Roy (E/W) - Rs 201134=0

Roy (M.D) - Rs 65721=0

S.F (10%) - Rs 87049=0

By Cheque Rs 3734924=0

Gross ₹ 4657761=0 Passed for

₹ 4657761=0 Forty Six Lakh fifty

Seven thousand Seven hundred

Sixty one only.

Continuation

Rajkrishn  
4/10/20

Executive Engineer  
RWD, Works Division  
Sherghati



Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	1	30m	4.05	0.20	$= 24.30m^3$
	1	10m	4.05	0.20	$= 8.10m^3$
					$32.40m^3$

2. Providing laying spread  
and compacting  
stone metal grade III

2m road as per specifications

$$16 \times 2.5m \times 3.75 \times 0.075 = 112.5$$

$$16 \times 2.5m \times 3.75 \times 0.075 = 112.5$$

$$16 \times 2.5m \times 3.75 \times 0.075 = 112.5$$

$$4 \times 2.5m \times 3.75 \times 0.075 = 28.13$$

$$4 \times 2.5m \times 3.75 \times 0.075 = 28.13$$

$$4 \times 2.5m \times 3.75 \times 0.075 = 28.13$$

$$/ 4 \times 2.5m \times 3.75 \times 0.075 = 28.13$$

$$450.02m^3$$

3. Providing applying

Primer coat as per spec.

$$18 \times 2.5m \times 3.75m = 750m^2$$

$$8 \times 2.5m \times 3.75m = 750m^2$$

$$/ 8 \times 2.5m \times 3.75m = 750m^2$$

$$5250m^2$$

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
4. Providing applying tack coat as per spec.					
Quantity same as item no-13)					
Rafe (12)					5250m <sup>2</sup>
5. Providing mix Seal Surfacing with 20mm thick as per specifications					
					8 x 25m x 3.75 = 750
					8 x 25m x 3.75 = 750m <sup>2</sup>

					8 x 25m x 3.75m = 750m <sup>2</sup>
					8 x 25m x 3.75m = 750m <sup>2</sup>
					8 x 25m x 3.75m = 750m <sup>2</sup>
					8 x 25m x 3.75m = 750m <sup>2</sup>
					8 x 25m x 3.75m = 750m <sup>2</sup>
					8 x 25m x 3.75m = 750m <sup>2</sup>
					5250m <sup>2</sup>

~~15/7/20~~  
 J.E.  
 20/11/20  
 15.7.20  
 A.G.

Continuation

P.T.O



Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
					81/11 - 78467

3/12. Construction of  
 Environment wall with  
 Lead - 100 m, quantity  
 wide Page - (10) - 1249.4 m<sup>2</sup>  
 @ Rs. 151.50/m<sup>2</sup> Rs. 189294

4/13. Construction of  
 Subgrade and earthen  
 Shoulder, quantity  
 wide Page - (10) - 4345.5 m<sup>2</sup>  
 @ Rs. 176.83/m<sup>2</sup> Rs. 953112

5. E/W <sup>C.I. WORK</sup> on  
 of top of structure  
 quantity wide Page (10)  
 231.160 m<sup>2</sup> @ Rs. 285.71/m<sup>2</sup> Rs. 66015

6. Providing plain  
 concrete on open form  
 quantity wide Page (10)  
 21.72 m<sup>2</sup> @ Rs. 5787.13/m<sup>2</sup> Rs. 125696

7. Providing plain con-  
 crete on open form  
 quantity wide Page (11)  
 123.43 m<sup>2</sup> @ Rs. 5584.50/m<sup>2</sup> Rs. 689295

COR. 2102039

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
					Approx. 2102039=
8. Plain concrete work in substructure at per side quantity vide Rate - (ii) 29739 @RS. 5795.08/m <sup>3</sup> RS. 519973=					
9. Reinforced concrete formation					
9. Subfilling filling and bearing Hrsid bar in Super Struc ure vide Rate - (ii) and Substructure					

0.65533 M.T.					
@RS. 72139.92/m <sup>3</sup> RS. 51257=					
10. Reinforced concrete work in <sup>sub</sup> structure Structure Quantity vide Rate - (ii) 4.46m <sup>3</sup> @RS. 6860.71/m <sup>3</sup> RS. 30589=					
11. Provision of Reinforced concrete in substructure Quantity vide Rate - (ii) 3.740 m <sup>3</sup> @RS. 7763.84/m <sup>3</sup> RS. 29035=					
12. Back filling between Abutment and Wing Wall vide Rate (iii) - <sup>continuation</sup> 33.79 m <sup>3</sup> @RS. 879.93/m <sup>3</sup> RS. 29564=					
					7.09   2762437=

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			P/R/S		2762437
13. Brovi Belg and 2cm of cement con crete kumal pape N.P.3.					
(A) 600mm dia HPC Quantity wide Rate-					
(12) - 7.5 m			@RS 12887/m		RS 9665
(B) 1000mm dia HPC wide Rate - (12) - 30m					
@RS 4141.59/m					RS 124248

14. Laying Bedding on well compacted sand wide Rate - (12)					
14.76 m <sup>3</sup>			@RS 610.51/m <sup>3</sup>		RS 9011
15. Filling in found <sup>n</sup> trenches wide Rate					
(12) 34.64 m <sup>3</sup>			@RS 610.51/m <sup>3</sup>		RS 21148
16. Construction of granular sub base wide Rate - (12) - 1338.60					
wide Rate - (15) - 32.40					1371.00 m <sup>3</sup>
@RS 2695.21/m <sup>3</sup>					RS 3695133
			C.O RS.		6621642

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			B/P	RS	662162-
17. Providing and spreading and Compacting Stone metal grade - III in road					
Quantity vide Rate (15)					
450.02 m <sup>3</sup>					
					@RS. 4107.0/m <sup>3</sup> RS. 1848232-
18. Providing and applying Polymer coat vide Rate (15)					
- 5250 m <sup>2</sup>					
					@RS. 54.70/m <sup>2</sup> RS. 287175
19. Providing and applying tack coat vide Rate - (16) - 5250 m <sup>2</sup>					
					@RS. 18.57/m <sup>2</sup> RS. 97493-
20. Providing and rolling of close graded Premix surfacing material of 20 mm thick composed					
11.2 mm to 0.90 mm					
Type (A) or 13.2 mm					
to 0.90 mm for type					
B.					@RS. 8854542

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
As per spty (B) RRS					8854542=
and technical spty					
Quantity vide Rate (16)					
5250 m <sup>2</sup> @ Rs. 234.81/m <sup>2</sup>					RS. 1232753
					<u>RS. 10087295=</u>
less 10% below					RS. 1008730=
					RS. 9078565=
less previous payment					RS. 4657761=
					RS. 4420804=
<i>[Signature]</i>					<i>[Signature]</i>
15/7/20					15.7.20
J. E.					AZ