

345/20-21

~~1049~~ 10 मुनिया ताली
पैसपुर से 1049

Schedule XLV Form No.-134
BIHAR P.W.D.

Muniya tola to 1049

जिला

SC

DIVISION

पैसपुर

SUB-DIVISION

M/S Anand Const.

MEASUREMENT BOOK

श्री हर-प्रसाद

Further Measurement

Sch. XLV-Form No.134

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Date of Measurement:-				29.2.24	
Details of work done:-					
(1/1) Construction of Reference & working Bench mark etc					
All complete job. →					1.645 km
(2/2) Construction of Reference & pillars/ Bungs etc					
All complete job. →					1.645 km
(3/10) Provision, laying, spreading & compaction stone aggregates of specific grad to WBM 4-3 specification etc all complete job.					
B.T. portion	2	30.00 m	3.75 m	0.025 m	16.875 m ³
	1	26.00 m	3.75 m	0.025 m	7.3125 "
C.C. Portion	5	30.00 m	2.0	0.375 m	8.4375 "
"	1	29.00 m	2.0	0.375 m	1.63125 "
Extra at curves.					
B.T. Portion	16 m	$\frac{3.75 + 7.0}{2}$	$\frac{3.75 m}{2}$	$0.025 m$	1.8275 m ³
"	2	$\frac{15 + 4.15 + 3.75}{3}$	$\frac{3.75 m}{3}$	$0.025 m$	0.2995 "
"	2	$\frac{20 + 4.10 + 3.75}{3}$	$\frac{3.75 m}{3}$	$0.025 m$	0.3495 "
C.C. Portion	10 m	$\frac{3.75 m + 8.0 m}{2}$	$3.75 m$	$0.025 m$	1.59375 "
Total					38.3265 m ³
Less for culvert portion					
	1	3.0 m	3.75 m	0.025 m	(-) 0.84375 "
Net Qty =					37.48275 m ³

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(4/14)	Construction of unreinforced Plain cement concrete Pavement Mas grad over prepared subbase etc all complete etc.				
					$2.00 \text{ m} \times 3.75 \text{ m} \times 0.16 \text{ m} = 1.20 \text{ m}^3$
For outer lay	5	30.00 m	3.75 m	0.16 m	$= 90.00 \text{ m}^3$
"	1	29.00 m	3.75 m	0.16 m	$= 17.40 \text{ m}^3$
Extra at curve	1	10.00 m	$\frac{(3.75 + 8.0)}{2}$		
				$\times 0.16 \text{ m} = 3.40 \text{ m}^3$	
					Total $\rightarrow 112.00 \text{ m}^3$

(5/11)	Provided & applying primer coat etc all complete job.				
	7	30.00 m	3.75 m		$= 787.50 \text{ m}^2$
	1	12.00 m	3.75 m		$= 45.00 \text{ m}^2$
extra at curve	1	17.00 m	$\frac{(3.75 + 7.0)}{2}$		$= 27.62$
	2	15 m	$\frac{(3.75 + 4.10 + 3.75)}{3}$		$= 3.499$
	2	16.00 m	$\frac{(4.10 + 3.75 + 3.75)}{3}$		
			$- 3.75 \text{ m}$		$= 3.73 \text{ m}^2$
					Total $\rightarrow 867.349 \text{ m}^2$

29/24
 AE

05/03/24
 AE

Further Measurement

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Date of measurement:-				4.3.2024	
Details of work done:-					
(1/12) Providing and applying Tack-coat etc till complete job.					
	7	30.00 m	3.75 m		= 787.50 m ²
	1	12.00 m	3.75 m		= 45.00 "
Extra at Curves:	17.00 m	$\left(\frac{3.75+7.0}{2} - 3.75\right)$ m			= 27.62 "
	2	15.00 m	$\left(\frac{3.75+4.10+3.75}{3} - 3.75\right)$ m		= 3.499 "
	2	16.00 m	$\left(\frac{3.75+4.10+3.75}{3} - 3.75\right)$ m		= 3.73 "
				Total	= 867.349 m ²
(2/13) Providing, laying & rolling of close graded premix surface material etc till complete job					
	7	30.00 m	3.75 m		= 787.50 m ²
	1	12.00 m	3.75 m		= 45.00 "
Extra at Curves:	1	17.00 m	$\left(\frac{3.75+7.0}{2} - 3.75\right)$ m		= 27.62 "
	2	15.00 m	$\left(\frac{3.75+4.10+3.75}{3} - 3.75\right)$ m		= 3.499 "
	2	16.00 m	$\left(\frac{3.75+4.10+3.75}{3} - 3.75\right)$ m		= 3.73 "
				Total	= 867.349 m ²
(3/16) Recm 15 grade km/local stone etc till complete job.					
or 2 km stone				2 Nos.	
(4/17) Recm 15 grade km/local stone etc till complete job					
200 m stone				7 Nos.	
(5/18) Recm 15 grade Boundary Pillars etc till complete job.					

Continuation

LS 24 Nos.

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(6/19) Painting two coats etc all complete job.					
Per cutwork $\rightarrow$		$2 \times 3 \times 6.20 \text{ m}$	1.80 m		$= 66.96 \text{ m}^2$
(7/20) Providing & applying two coats of water based cement paint etc all complete job.					
Below road marking		$18 \times 30.00 \text{ m}$	$2 \times 0.10 \text{ m}$		$= 108.00 \text{ m}^2$
"		$14 \times 30.00 \text{ m}$	$2 \times 0.10 \text{ m}$		$= 0.80 "$
"		$5 \times 30.00 \text{ m}$	$2 \times 0.10 \text{ m}$		$= 30.00 "$
"		$14 \times 29.00 \text{ m}$	$2 \times 0.10 \text{ m}$		$= 5.80 "$
				Total $\rightarrow$	144.60 m^2
(8/21) Providing & laying of hot applied thermoplastic compound etc all complete job.					
Flexible - pavement.		$30 \times 30.00 \text{ m}$	$2 \times 0.10 \text{ m}$		$= 180.00 \text{ m}^2$
"		$1 \times 22.00 \text{ m}$	$2 \times 0.10 \text{ m}$		$= 4.40 "$
Rigid pavement		Same as item No (7/20)			$\rightarrow 144.60 "$
				Total $\rightarrow$	329.00 m^2
(9/22) Providing new letters & figures etc all complete job					$\rightarrow 132 \text{ Nos}$
(10/24) Providing & fixing of Typical Maintenance Board etc all complete job.					$\rightarrow 2 \text{ Nos}$
(11/25) Providing & fixing of Retro reflective Sign as per IRC: 67 etc all complete job					
		$600 \text{ mm equilateral Triangle}$			$\rightarrow 14 \text{ Nos}$

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(12/27)	Planting & fixing of Retro-reflectionised signs as per IRC:67 etc all complete job.				
	600mm x 450mm Rectangular $\rightarrow$ 2 Nos.				
(13/28)	Planting & fixing of Retro-reflectionised signs as per IRC:67 etc all complete job.				
	900mm Side octagon $\rightarrow$ 2 Nos.				
(14/30)	Planting of trees by the road side and their maintenance for one year etc all complete job				
	$\rightarrow$ 90 Nos.				
(15/8)	Laying brick solid layer on prepared subgrade etc all complete job.				
Both Side of C.C. Pavement	2 x 30m x 2 x 0.375m			=	45.00 m ²
	2 x 30m x 2 x 0.375m			=	45.00 "
1)	1 x 30m x 2 x 0.375m			=	15.00 "
	Totals				105.00 m ²
(16/5)	Construction of subgrade & Earthen shoulders etc all complete job.				
For plank B.T. Portion	30 x 30.00m x 2 x 1.40m x 0.20m			=	504.00 m ³
C.C. Portion	18 x 30.00m x 2 x 1.30m x 0.18m			=	245.76 "
	Totals				749.76 m ³

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Sch. XLV-Form No.134					
Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(12/27)	branding & fixing of Retro-reflectorised signs as per IRC:67 etc all complete job.				
	600mm x 450mm Rectangular → 2 nos.				
(13/28)	branding & fixing of Retro-reflectorised signs as per IRC:67 etc all complete job.				
	900mm Side octagon → 2 nos.				
(14/30)	Planting of trees by the road side and their maintenance for one year etc all complete job				
	→ 90 Nos.				
(15/8)	Laying brick solid layers on prepared subgrade etc all complete job.				
Both Side of	2 x 30M + 2 x 0.375M			=	45.00 m ²
O.C. Pavement	2 x 30M + 2 x 0.375M			=	45.00 "
1)	1470M + 2 x 0.375M			=	15.00 "
	Total				105.00 m ²
(16/5)	Construction of subgrade & Earthen shoulders etc all complete job				
For Plank B.T. Portion	30 x 30.00M x 2 x 1.40M x 0.20M			=	504.00 m ³
C.C. Portion	18 x 30.00M x 2 x 1.30M x 0.18M			=	245.70 "
	Total				749.70 m ³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	Calculation of E/W 2m fill p				
	by Graph method				
chainage (m)	area c/s area (m ²)	mean c/s area (m ²)	length (m)	Qty of fill (m ³)	
00		1.216	—	—	
50		1.259	1.238	50	
100		1.242	1.251	50	
150		2.143	1.693	50	
200		2.124	2.134	50	
250		1.161	1.643	50	
300		1.473	1.317	50	
350		1.438	1.456	50	
400		1.318	1.378	50	
450		1.157	1.238	50	
500		1.415	1.286	50	
550		1.138	1.277	50	
600		1.154	1.146	50	
650		1.191	1.173	50	
700		1.884	1.538	50	
750		1.918	1.901	50	
800		2.432	2.175	50	
850		3.549	2.991	50	
900		7.96	5.755	50	
950		8.186	8.078	50	
1000		7.277	7.737	50	
1050		5.253	6.575	50	
1100		7.647	6.70	50	
1150		7.348	7.498	50	
			C.O	3455.5575	

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Chainage (m)		Chainage (m)	Mean of Area (m)	Length (m)	Qty of fill (m ³)
				BF →	3455.55 m ³
1200		8.010	7.679	50	383.95 m ³
1250		8.060	8.035	50	401.75 "
1300		8.426	8.243	50	412.15
1350		7.619	8.023	50	401.125
1400		7.857	7.738	50	386.90
1450		7.55	7.704	50	385.125
1500		8.125	7.838	50	391.875
1550		5.625	6.876	50	343.775
1600		1.046	3.336	50	166.80
1645		1.463	1.255	45	56.453
			Total →		6785.503 m ³

Deduction: -

G.S.B	→	762.83 m ³
W.B.M G-3	→	425.76 "
Box Cuttup	→	82.88 "
Rigid Pavement	→	437.06 "
Subgrade	→	2774.78 "
	Total →	4483.31 m ³

Hence Qty of e/w in fill in Embkt.

$$= (6785.503 - 4483.31) \text{ m}^3$$

$$= 2302.193 \text{ m}^3$$

(17/4)

Construction of Embkt. with approx

material obtained from loan

Lead etc all complete frs.

Qty 30% of 2302.193 m³

$$= 690.65 \text{ m}^3$$

Continuation

7th on A/c Bill.

Abstract of cost

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Name of work:- Construction of Road					
from Nuniya dola to					Long
under masonry.					
Agency:- m/s Anant Construction					
At+P.O:- Rampur chhapkaniya.					
Dist:- East Champaran.					
Agreement No:- 2053D/2020-21					
Date of start:- 10.7.2020					
Time of Completion:- 9.7.2021					
A.D.O.C. >				4.3.2024	
Details of work done:-					
(1/1) Construction of Reference					
2 working Bench mark					
etc all complete fis.					
1.645 km wide GMB P-37					
@ Rs 99730.66/km = Rs 16407 = w					
(2/2) Construction of Reference					
Pillars/Benjies etc all					
Complete fis.					
645 km wide TMB P-37					
@ Rs 98701.38/km = Rs 16237 = w					
(3/3) Cleanup & grubbing					
road land etc all					
Complete fis.					
.49 Hec wide TMB P-31					
@ Rs 51133.76/Hec = Rs 25056 = w					
				C.O. Rs 57,700 = w	

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				B.F. = B	57,700 =
(4/4)	Construction of Embankment with approved material obtained from 1000-m lead etc till complete job.				
690.65 m ³	vide	TMB	P-43		
	@ Rs 202.57/m ³			= Rs	1,39,870 =
(5/5)	Construction of Subgrade and Earthen Shoulders etc till complete job.				
749.70 m ³	vide	TMB	P-41		
2020.08 m ³	"	"	P-31		
2774.78 m ³	@ Rs 204.16/m ³			= Rs	5,66,499 =
(6/6)	Construction of Embankment with approved material obtained from 1000-m lead etc till complete job.				
1611.543 m ³	vide	TMB	P-44		
	@ Rs 167.41/m ³			= Rs	2,69,788 =
(7/7)	Excavation for roadway 2m soil with manual means etc till complete job.				
82.88 m ³	vide	TMB	P-4		
	@ Rs 74.16/m ³			= Rs	6,146 =
(8/8)	Laying Bitum. surf layer on prepared subgrade etc till complete job.				
105.00 m ²	vide	TMB	P-41		
	@ Rs 472.43/m ²			= Rs	49,605 =

Continuation 0.03 Rs 10,89,608 =

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				B.F $\Rightarrow$ 10,89,608 = 10	
(9/9)				Construction of Granular	
				Subbase by providing	
				well graded material	
				etc till complete job.	
762-83M ³	vide	TMB	P-32		
	@	3044	25/M ³	= 6	23,22,245 = 10
(10/10)				providing	
				WBM 6-3	
				etc till complete job.	
388107M ³	vide	TMB	P-32		
37.48275M ³	"	"	P-37		
T $\Rightarrow$ 425.55275M ³	@	3785.04	/M ³	= 16,10,734 = 10	
(11/11)				providing & applying	
				Primer coat etc till	
				complete job.	
2625.00M ²	vide	TMB	P-32		
867.349M ²	"	"	P-38		
T $\Rightarrow$ 3492.349M ²	@	44.57	/M ²	= 15,56,42 = 10	
Limit $\Rightarrow$ 3492.08M ²					
(12/12)				providing & applying	
				Tack coat etc till comp-	
				lete job.	
2625.00M ²	vide	TMB	P-32		
867.349M ²	"	"	P-39		
T $\Rightarrow$ 3492.349M ²	@	15.15	/M ²	= 52,905 = 10	
Limit $\Rightarrow$ 3492.08M ²					
(13/13)				providing, laying & rolling	
				of close graded premix	
				surface material etc	
				all complete job.	
2625.00M ²	vide	TMB	P-33		
867.349M ²	"	"	P-39		
T $\Rightarrow$ 3492.349M ²	@	24.80	/M ²	= 7,85,020 = 10	
Limit $\Rightarrow$ 3492.08M ²					
Continuation					
C.O $\Rightarrow$ 60,16,154 = 10					

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			B.F → B	60, 16, 154 = 60	
(14/14)			Construction of kerb -		
			forced plain cement -		
			concrete pavement m/s		
			grade etc all complete		
			job .		
112.00 m ³			wide TMB	P-38	
325.20 m ³	"	"	"	P-33	
→ 437.20 m ³					
Limit → 437.06 m ³			@ B 7171.64 / m ³	= B	3134.437 = 60
(15/16)			RCC MIS grade km/local		
			stone etc all complete job .		
			ord. km stone		
2 NOS.			wide TMB	P-39	
			@ B 2450.12 each = B	4900 = 60	
(16/17)			RCC MIS grade km/local		
			stone etc all comp. job .		
7 NOS.			wide TMB	P-39	
			@ B 632.16 each = B	4425 = 60	
(17/18)			RCC MIS grade Boundary		
			Pillar / local stone of		
			standard design etc		
			all complete job .		
24 NOS.			wide TMB	P-39	
			@ B 509.72 each = B	12233 = 60	
(18/19)			Painting two coats etc		
			all complete job .		
66.96 m ²			wide TMB	P-40	
			@ B 97.96 / m ²	= B	6559 = 60

Continuation C.O → B 91,78,708 = 60

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				B.F. → Rs 94,77,805 = 00	
(24/25)	Procurement & fixing of Retro-reflectors				
	Reflectorised signs as per IRC: 67 etc all complete job.				
	600mm Equilateral Triangle				
14 Nos.	vide TMB P-40				
	@ Rs 3530.21 Each = Rs 49,423 = 00				
(25/27)	Procurement & fixing of Retro-reflectors				
	Reflectorised signs as per IRC: 67 etc all complete job.				
	600 x 450 mm Rectangular				
2 Nos.	vide TMB P-41				
	@ Rs 4174.98 Each = Rs 8,350 = 00				
(26/28)	Procurement & fixing of Retro-reflectors				
	Reflectorised signs as per IRC: 67 etc all complete job.				
	900mm Side Octagon				
2 Nos.	vide TMB, P-41				
	@ Rs 8131.83 Each = Rs 16,264 = 00				
(27/30)	Planting of trees by the road side & their maintenance for one year etc all complete job.				
90 Nos.	vide TMB, P-41				
	@ Rs 819.92 Each = Rs 73,793 = 00				
	2.07 Rs 96,27,635 = 00				

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				B.F. →	13,96,27,635 ⁰⁰
(28/31)					
					Exp in excavation for foundation of structures etc all complete job.
15.82 m ³		vide TMB	P-33		
				@ 269.32/m ³	= 4,261 ⁰⁰
(29/32)					
					sand fill in foundation trenches etc all complete job.
1.34 m ³		vide TMB	P-34		
				@ 400.59/m ³	= 537 ⁰⁰
(30/34)					
					providing RCC in open foundation etc all complete job.
0.90 m ³		vide TMB	P-34		
				@ 5975.75/m ³	= 5378 ⁰⁰
(31/39)					
					providing RCC in Box Cell etc all complete job.
14.64 m ³		vide TMB	P-34		
				@ 7516.40/m ³	= 1,10,040 ⁰⁰
(32/40)					
					Back fill behind abutment & R.Wall complete & per draft & technical specification etc all complete job.
7.20 m ³		vide TMB	P-34		
				@ 2916.24/m ³	= 20,997 ⁰⁰
					Continuation C. → 97,68,848 ⁰⁰

Continuation